IMIDACLOPRID | GROUP 4A | INSECTICIDE

# VILOPRID™ FC 1.7

## Insecticide

**Active Ingredient:** **By Wt**

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-*N*-nitro-2-imidazolidinimine .....18.5%
**Other Ingredients:**.....81.5%
**Total:** .....100.0%

This product contains 1.7 pounds of active ingredient per gallon

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

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

**EPA Reg. No. 89118-9**

| FIRST AID | |
|---|---|
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.<br>• Call a poison control center or doctor for treatment advice. |

**Note to Physician:**
This product is a neonicotinoid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

**EMERGENCY INFORMATION**
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical or chemical emergency contact Chemtel Inc. in North America at 1-800-255-3924 or worldwide international at +1-813-248-0585

## Net Contents: 2.5 Gallons

Vive Crop Protection Inc.
500 Westover Dr. #10198
Sandford, NC 27330
1-888-760-0187

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2022-05-20

# PRECAUTIONARY STATEMENTS

## Hazards to Humans and Domestic Animals

**Caution.** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

## Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

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

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

## 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.

## PROTECTION OF POLLINATORS

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

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

**This product can kill bees and other insect pollinators.**
Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

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

When Using This Product Take Steps To:

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

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

## Physical or Chemical Hazards

Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

# 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 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 Viloprid FC 1.7 on crops grown for seed.

## 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 where possible. 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.

### 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. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_030970.pdf"

## 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.

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

## SPRAY DRIFT 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

Viloprid FC 1.7 is a versatile, broad-spectrum insecticide containing the active ingredient imidacloprid in a suspension concentrate (SC) product that is compatible with liquid fertilizers. Viloprid FC 1.7 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

Viloprid FC 1.7 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, Viloprid FC 1.7 contains a Group 4A insecticide. Any insect population may contain individuals that are inherently resistant to Viloprid FC 1.7 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 Viloprid FC 1.7 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. You can also contact your pesticide distributor or university extension specialist to report resistance.

### 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 Viloprid FC 1.7 or other Group 4A insecticides.
- Avoid making a block of more than 3 consecutive foliar applications of Viloprid FC 1.7 or other group 4A insecticides in the same crop season.
- Avoid making a foliar-applied program of Viloprid FC 1.7 or other Group 4A insecticides in the same crop season that a soil-applied program of Viloprid FC 1.7 or other group 4A insecticides has been applied targeting inspect species with a high potential to develop resistance.

### Integrated Pest Management (IPM)

Viloprid FC 1.7 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

Viloprid FC 1.7 is a suspension concentrate product. Shake or agitate well prior to measuring or pouring. Like most suspension concentrate products, Viloprid FC 1.7 will thicken upon standing for long periods of time. Viloprid FC 1.7 will revert back to an easily flowable fluid after a brief shake or stir.

Viloprid FC 1.7 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.

Viloprid FC 1.7 insecticide is designed for at-plant, soil, and foliar applications, and must be diluted with water and/or liquid fertlizer before application. Refer to **Specific Use Directions for Field 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 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 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 Viloprid FC 1.7 to honey bees and other pollinators. Additional information on Viloprid FC 1.7 uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, consultants or local Vive Crop Protection representatives.

Unless otherwise directed by EPA registered supplemental labeling, follow the Directions for Use in each crop group section.

**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 |
|---|---|---|---|
| 1.9 | 0.025 | 67 | 168 |
| 2.4 | 0.032 | 53 | 133 |
| 2.7 | 0.036 | 47 | 119 |
| 3.3 | 0.044 | 39 | 97 |
| 3.54 | 0.047 | 36 | 90 |
| 3.8 | 0.05 | 34 | 84 |
| 4.5 | 0.06 | 28 | 71 |
| 5.3 | 0.07 | 24 | 60 |
| 6.0 | 0.08 | 21 | 53 |
| 6.8 | 0.09 | 19 | 47 |
| 7.5 | 0.10 | 17 | 43 |
| 8.3 | 0.11 | 15 | 39 |
| 9.0 | 0.12 | 14 | 36 |
| 9.5 | 0.126 | 13 | 34 |
| 9.8 | 0.13 | 13 | 33 |
| 10.5 | 0.14 | 12 | 30 |

*(continued)*

**Application Rate Summary Table** *(continued)*

| fl oz Product/A | lb imidacloprid/A | Treated Acres per Gallon Product | Treated Acres per 2.5 Gallon Jug of Product |
|---|---|---|---|
| 12.0 | 0.16 | 11 | 27 |
| 13.6 | 0.18 | 9 | 24 |
| 15.1 | 0.20 | 8 | 21 |
| 17.3 | 0.23 | 7 | 18 |
| 18.1 | 0.24 | 7 | 18 |
| 18.8 | 0.25 | 7 | 17 |
| 20.3 | 0.27 | 6 | 16 |
| 21.1 | 0.28 | 6 | 15 |
| 22.6 | 0.30 | 6 | 14 |
| 23.3 | 0.31 | 5 | 14 |
| 24.8 | 0.33 | 5 | 13 |
| 25.6 | 0.34 | 5 | 13 |
| 27.1 | 0.36 | 5 | 12 |
| 27.9 | 0.37 | 5 | 11 |
| 28.6 | 0.38 | 4 | 11 |
| 30.1 | 0.40 | 4 | 11 |
| 37.6 | 0.50 | 3 | 9 |

## Solo Viloprid FC 1.7 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 Viloprid FC 1.7 for the insecticide application. While pouring, avoid direct contact of Viloprid FC 1.7 with the mix tank wall to achieve the best dispersion.
- Continue agitation while adding the remaining ½ - ⅓ 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

Viloprid FC 1.7 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 ⅓ to ½ 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 Viloprid FC 1.7.
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 Viloprid FC 1.7 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 Viloprid FC 1.7 by ground or chemigation application.

Applying Viloprid FC 1.7 to the root-zone of plants is ideal, as it is the systemic activity of Viloprid FC 1.7 that provides most control. Early application of Viloprid FC 1.7 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 Viloprid FC 1.7 controls insects which may vector disease transmission.

Refer to the Specific Use Directions to determine if Viloprid FC 1.7 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 acre | Average Row Spacing (inches) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *15* | *20* | *22* | *24* | *30* | *32* | *34* | *36* |
| **6.8** | 0.20 | 0.26 | 0.29 | 0.31 | 0.39 | 0.42 | 0.44 | 0.47 |
| **12.0** | 0.34 | 0.46 | 0.51 | 0.55 | 0.69 | 0.73 | 0.78 | 0.83 |
| **13.6** | 0.39 | 0.52 | 0.57 | 0.62 | 0.78 | 0.83 | 0.88 | 0.94 |
| **15.1** | 0.43 | 0.58 | 0.64 | 0.69 | 0.87 | 0.92 | 0.98 | 1.04 |
| **20.3** | 0.58 | 0.78 | 0.85 | 0.93 | 1.17 | 1.24 | 1.32 | 1.40 |
| **23.3** | 0.67 | 0.89 | 0.98 | 1.07 | 1.34 | 1.43 | 1.52 | 1.60 |
| **24.8** | 0.71 | 0.95 | 1.04 | 1.14 | 1.42 | 1.52 | 1.61 | 1.71 |
| **28.6** | 0.82 | 1.09 | 1.20 | 1.31 | 1.64 | 1.75 | 1.86 | 1.97 |

**IMPORTANT: The linear application rate applied affects the duration and degree of control to a large extent. Linear application rates in the shaded region in the above table will provide early season protection to the seed and seeding, 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 Viloprid FC 1.7 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 Viloprid FC 1.7 applications. Supplemental control measures may be required to completely control these insect pests or diseases.

## Chemigation Use Directions

Viloprid FC 1.7 may be applied to crops through chemigation systems as specified in the **Specific Use Directions for Crop Plants** section.

- Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; furrow; border or drip (trickle) irrigation system(s). 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.

**Require 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 for which imidacloprid tolerances exist may be rotated at any time. |
|---|
| **IMMEDIATE PLANT-BACK:**<br>All crops on this label plus the following crops not on this label: barley; bulb vegetables; corn (field, pop & sweet); rapeseed/canola; sorghum; and wheat. |
| **30-DAY PLANT-BACK:**<br>Cereals (including buckwheat, millet, oats, rice, rye, and triticale), safflower. |
| **12-MONTH PLANT-BACK:**<br>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 |

## Specific Use Directions for Field Crops

## Artichoke, Globe

**ARTICHOKE, GLOBE SOIL APPLICATIONS**

| PESTS | USE RATE<br>fl oz product/A<br>(lb a.i./A) |
|---|---|
| Aphids<br>Leafhoppers | 18.8 – 37.6<br>(0.25 – 0.50) |

**Soil Application Instructions:**

- 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 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 7 days.

**ARTICHOKE, GLOBE FOLIAR APPLICATIONS**

| PESTS | USE RATE<br>fl oz product/A<br>(lb a.i./A) |
|---|---|
| Aphids<br>Leafhoppers | 3.8 – 9.5<br>(0.05 – 0.126) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**

- **Annual Maximum:**
  - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 14 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Bananas and Plantains

| BANANAS AND PLANTAINS - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Disease Suppression:<br>Scales | 18.8 – 37.6<br>(0.25 – 0.50) |

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

**Soil Use Restrictions:**
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 0 days.

| BANANAS AND PLANTAINS - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Thrips | 7.5<br>(0.10) |

**Foliar Application Instructions:**
- 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 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 14 days apart.
- **Pre-Harvest Interval (PHI):** 0 days.

## Brassica (Cole) Leafy Vegetables Crop Group 5

**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**

| BRASSICA (COLE) LEAFY VEGETABLES - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies | 12.0 – 28.6<br>(0.16 – 0.38) |

*(continued)*

## Brassica (Cole) Leafy Vegetables Crop Group 5

*(continued)*

**BRASSICA (COLE) LEAFY VEGETABLES - SOIL APPLICATIONS** *(continued)*

**Soil Application Instructions:**
- Make application by one of the following methods and ensure incorporation into the root-zone:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o 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.
  - o As a narrow banded application directly below the eventual seed row during bedding operations 14 or fewer days before planting.
  - o As a post-seeding drench, transplant-water drench, or hill drench.
  - o 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.
- **Annual Maximum:**
  - o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 21 days.

| BRASSICA (COLE) LEAFY VEGETABLES - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Whiteflies | 3.54<br>(0.047) |

**Foliar Application Instructions:**
- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**
- **Application Restrictions:** Do not use on crops grown for seed.
- **Annual Maximum:**
  - o Do not exceed 17.3 fl oz of Viloprid FC 1.7 (0.23 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.23 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 5 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Bushberry Subgroup 13B

**Blueberry, highbush and lowbush; currant; elderberry; gooseberry; huckleberry**

| BUSHBERRY - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Japanese Beetle (Adults Feeding on Foliage)<br>White Grub Complex[1] (Grubs of Asiatic Garden Beetle, European and Masked Chafer, Japanese Beetle and Oriental Beetle) | 18.8 – 37.6 (0.25 – 0.50) |

**Soil Application Instructions:**

- 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 by immediate irrigation.
- Apply post-bloom until up to 7 days prior to harvest, or post-harvest until October 1st.
- Make applications to moist soil. If soil is not moist, hydrate the soil with irrigation water immediately before making an application of Viloprid FC 1.7.
- Irrigation with 0.5 – 1 inch of irrigation water or rainfall within 24 hours of a soil surface application will facilitate movement into the soil and root-zone which will aid with efficacy.

**Instructions for Specific Pests:**

- [1]**Grubs:** Make applications to grass covered rows, row middles, drive lanes, headlands, and other grassy areas in and around the berry field to control resident grub populations. Applications made to the root-zone will help protect from grubs feeding on berry plant roots.

**Soil Use Restrictions:**

- **Application Timing:**
  - Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 7 days.

| BUSHBERRY - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers / Sharpshooters | 2.7 – 3.8 (0.036 – 0.05) |
| Blueberry Maggot<br>Japanese Beetle (Adults)<br>Thrips (Foliage Feeding Thrips Only) | 6.0 – 7.5 (0.08 – 0.10) |

**Foliar Use Restrictions:**

- **Application Timing:** Do not apply pre-bloom, during 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 Viloprid FC 1.7 per acre per calendar year.
  - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 7 days apart.
- **Pre-Harvest Interval (PHI):** 3 days.

## Caneberry (Blackberry and Raspberry) Subgroup 13A

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

| CANEBERRY (BLACKBERRY AND RASPBERRY) - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATES fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Whiteflies<br>Suppression:<br>Thrips (Foliage Feeding Thrips Only) | 18.8 – 37.6 (0.25 – 0.50) |
| Rednecked Cane Borer | 28.6 – 37.6 (0.38 – 0.50) |

**Soil Application Instructions:**

- 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 pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 7 days.

| CANEBERRY (BLACKBERRY AND RASPBERRY) - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only) | 7.5 (0.10) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**

- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - Do not exceed 22.6 fl oz of Viloprid FC 1.7 (0.30 lb a.i.) per acre per calendar year.
  - Foliar uses only: do not exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 7 days apart.
- **Pre-Harvest Interval (PHI):** 3 days.

## Christmas Trees

| CHRISTMAS TREES - 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) | 18.8 – 37.6 (0.25 – 0.50) |

**Soil Application Instructions:**

- 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 for small trees or a broadcast application to the soil for large trees followed by irrigation.
- Soil incorporation and movement to the root-zone is required for activity. Applications to moist soil will help facility incorporation.
- Irrigation with 0.25 – 1 inch of irrigation water or rainfall within 12 hours of a soil surface application will facilitate movement into the soil and root-zone which will aid with efficacy.

**Soil Use Restrictions:**

- **Annual Maximum:**
  - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.

| CHRISTMAS TREES - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Adelgids[1]<br>Aphids<br>Sawflies | 3.8 – 7.5 (0.05 – 0.10) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Instructions for Specific Pests:**

- [1]**Adelgids:** 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 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 7 days apart.

## Citrus Crop Group 10

**Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin**

| CITRUS - CONTAINERIZED SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz / "citra pot" \| 0.1 $ft^3$ container media (lb a.i./0.1 $ft^3$)** |
| Aphids<br>Asian Citrus Psyllid<br>Blackfly<br>Citrus Leafminer<br>Citrus Root Weevil[1] (Larval Complex)<br>Leafhoppers / Sharpshooters<br>Mealybugs<br>Scales<br>Whiteflies | 0.030 – 0.046 (0.0004 – 0.0006) |
| Suppression:<br>Citrus Thrips (Foliage Feeding Thrips Only) | 0.046 (0.0006) |

**Containerized Soil Application Instructions:**

- For commercial nursery production in a standard 0.1 $ft^3$ volume citra pot. 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.
  - Basal soil drench applied in a minimum of 1 fl oz of solution volume per citra pot.
- Apply with sufficient carrier volume to ensure thorough distribution throughout the potting media without the solution volume dripping out of the container.
- For best results treatment should be made during planting/transplanting before insect infestation.
- Retreat the media if necessary, but do not apply more than the maximum allowed product specified in the **Containerized Soil Use Restrictions** section.
- For container volumes other than 0.1 $ft^3$ calculate the required dosage based on 0.046 mL of Viloprid FC 1.7 per 0.1 $ft^3$ of potting media and apply the calculated dosage per container. Do not apply more than 0.274 fl oz of Viloprid FC 1.7 per plant per crop season regardless of container size.

**Instructions for Specific Pests:**

- [1]**Citrus root weevil complex:** make application prior to the neonate larvae entering the potting media.

**Precautions:**

- 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 pre-bloom, during bloom, or when bees are foraging.
- **Maximum Single Applications:** Do not apply more than 0.046 fl oz Viloprid FC 1.7 per 0.1 $ft^3$ per application.
- **Annual Maximum:** Containerized soil applications only: do not exceed 0.274 fl oz of Viloprid FC 1.7 (0.0036 lb a.i.) per plant per crop season.
- **Pre-Harvest Interval (PHI):** 0 days.

*(continued)*

## Citrus Crop Group 10 *(continued)*

| CITRUS - FIELD SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Asian Citrus Psyllid<br>Blackfly<br>Citrus Leafminer<br>Leafhoppers / Sharpshooters<br>Mealybugs<br>Scales<br>Whiteflies | 18.8 – 37.6<br>(0.25 – 0.50) |
| Suppression:<br>Citrus Nematode[1]<br>Thrips (Foliage Feeding Thrips Only)<br>Disease Suppression:<br>Symptoms of Citrus Tristeza Virus (CTV) Through Vector Control<br>Citrus Yellows | 37.6<br>(0.50) |

**Field Soil Application Instructions:**

- Make application by one of the following methods:
  - o 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 for optimal results. 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.
  - o As a banded spray on both sides of the tree, overlapping the bands at the base of the tree to create a continuous band within the drip line area of the tree. Immediately follow application with light sprinkler irrigation to move the imidacloprid into the upper portions of the root zone. This application method is suitable when used on very coarse soils with 0.75% or less organic matter.
  - o 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.

**Instructions for Specific Pests:**

- **[1]Citrus 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:**

- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 0 days.

*(continued)*

## Citrus Crop Group 10 *(continued)*

| CITRUS - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Asian Citrus Psyllid<br>Blackfly<br>Leafhoppers / Sharpshooters<br>Leafminers<br>Mealybugs<br>Scales[1]<br>Whiteflies<br>Suppression:<br>Thrips (Foliage Feeding Thrips Only) | 9.8– 18.8<br>(0.13 – 0.25) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Instructions for Specific Pests:**

- **[1]Scales:** 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.
- **Maximum Single Applications:** Do not apply more than 18.8 fl oz of Viloprid FC 1.7 (0.25 lb a.i.) per acre per application.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 10 days apart.
- **Pre-Harvest Interval (PHI):** 0 days.

## Coffee

| COFFEE - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Leafminer<br>Disease Suppression:<br>Scales | 18.8 – 37.6<br>(0.25 – 0.50) |

**Soil Application Instructions:**

- Make application by one of the following methods:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As a subsurface side-dress into the root-zone by shanked application on both sides of the plants followed by irrigation.
  - o As a Basal soil drench applied in sufficient water to ensure incorporation into the root-zone followed by irrigation.

*(continued)*

## Coffee *(continued)*

**COFFEE - SOIL APPLICATIONS** *(continued)*

**Soil Use Restrictions:**

- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 7 days.

**COFFEE - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Leafhoppers<br>Leafminer<br>Disease Suppression:<br>Scales | 7.5<br>(0.10) |

**Foliar Application Instructions:**

- 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:**

- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 7 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Cotton

**COTTON - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) | USE RATE fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft @ 30" rows) |
|---|---|---|
| Cotton Aphid<br>Plant Bugs<br>Thrips<br>Whiteflies | 20.3 – 24.8<br>(0.27 – 0.33) | 1.17 – 1.42<br>(0.015 – 0.019) |

*(continued)*

## Cotton *(continued)*

**COTTON - SOIL APPLICATIONS** *(continued)*

**Soil Application Instructions:**

- Make application by one of the following methods:
  - o By chemigation into the root-zone through low-pressure drip, or trickle irrigation.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o As a narrow banded application directly below the eventual seed row during bedding operations 7 or fewer days before planting.
- Linear application rates affect the duration and degree on control to a large extent. The linear application rate in the table is based on 30" row spacing. See the **Application and Mixing Instructions** section for more information and application rates for different row spacing. In all cases do not exceed the maximum per acre use restriction.

**Soil Use Restrictions:**

- **Annual Maximum:**
  - o Do not exceed 24.8 fl oz of Viloprid FC 1.7 (0.33 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 including seed, soil, and foliar uses.
- **Grazing:** Do not graze treated fields.

**COTTON - FOLIAR APPLICATIONS**

| FOLIAR APPLICATIONS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Bandedwinged Whitefly<br>Bollworm/Budworm (Ovicidal Effect)<br>Cotton Aphid<br>Cotton Fleahopper<br>Plant Bugs (Excludes *Lygus hesperus*) | 2.4 – 4.5<br>(0.032 – 0.06) |
| Suppression:<br>Lygus Bug (*Lygus hesperus*)<br>Whiteflies (Other Than Bandedwinged Whitefly) | 3.54 – 4.5<br>(0.047 – 0.06) |

**Foliar Application Instructions:**

- 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 23.3 fl oz of Viloprid FC 1.7 (0.31 lb a.i.) per acre per calendar year.
  - o Do not exceed 0.31 lb imidacloprid per acre per calendar year from all foliar applied imidacloprid containing products.
  - o Do not exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 7 days apart.
- **Pre-Harvest Interval (PHI):** 14 days.
- **Grazing:** Do not graze treated fields.

## Cranberries

| CRANBERRIES - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Rootgrubs / Scarab Grubs (Scarabaeidae)<br>Rootworms (Chrysomelidae) | 18.8 – 37.6<br>(0.25 – 0.50) |

**Soil Application Instructions:**

- For best results make an application post-bloom immediately after bees are removed. The application should target early instar larvae.
- Make application to moist soil by one of the following methods:
  - o As a ground application soil spray in a minimum of 20 gallons final volume per acre directed to the root and crown area.
  - o As a chemigation application in 600 – 1000 gallons of final volume.
- Make applications to moist soil. If soil is not moist, hydrate the soil with irrigation water immediately before making an application of Viloprid FC 1.7.
- Irrigation with 0.1 – 0.3 inch of irrigation water or rainfall within 24 hours of a soil surface application will facilitate movement into the soil and root-zone which will aid with efficacy.

**Precautions:**

- Not all tank mix partners have been tested for phytotoxicity when mixed with Viloprid FC 1.7. 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 immediately pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 30 days.

## Cucurbit Vegetables Crop Group 9

**Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; 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 and snake 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**

| CUCURBIT VEGETABLES - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Cucumber Beetles<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies<br>Disease Suppression:<br>Bacterial Wilt (as Vectored by Various Cucumber Beetles)<br>Leaf Silvering (Resulting from Whitefly Feeding) | 18.8 – 28.6<br>(0.25 – 0.38) |

**Soil Application Instructions:**

- Make application by one of the following methods and ensure incorporation into the root-zone:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o 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.
  - o As a narrow banded application directly below the eventual seed row during bedding operations 14 or fewer days before planting.
  - o As a post-seeding drench, transplant-water drench, hill drench; or as a subsurface side-dress on both sides of each row.

**Soil Use Restrictions:**

- **Application Restrictions:** Do not use on crops grown for seed.
- **Annual Maximum:**
  - o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 21 days.

| CUCURBIT VEGETABLES - PLANTHOUSE APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/10,000 plants (lb a.i./10,000 plants)** |
| Aphids<br>Whiteflies | 1.17<br>(0.0156) |

*(continued)*

## Cucurbit Vegetables Crop Group 9 *(continued)*

**CUCURBIT VEGETABLES - PLANTHOUSE APPLICATIONS** *(continued)*

**Planthouse Application Instructions:**

- For application to seedlings in trays in the planthouse not more than 7 days prior to transplanting.
- Make application targeting the soil media (tray drench) by one of the following methods:
  - o By chemigation through injection into an overhead irrigation system.
  - o As a broadcast high-volume foliar spray followed immediately by overhead irrigation with sufficient volume to wash Viloprid FC 1.7 from the foliage into the tray media. Failure to wash from the foliage into the tray media may result in reduce pest control.
- 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.

**Precautions:**

- 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.
- **Application Restrictions:** Do not use on crops grown for seed.
- **Maximum Single Applications:** Do not apply more than 1.17 fl oz of Viloprid FC 1.7 (0.0156 lb a.i.) per 10,000 plants per application.
- **Annual Maximum:**
  - o Do not exceed 1 application of Viloprid FC 1.7 in a planthouse per crop.
  - o Do not exceed 1.17 fl oz of Viloprid FC 1.7 (0.0156 lb a.i.) per 10,000 plants.
  - o Planthouse uses only: do not exceed 0.0156 lb imidacloprid/10,000 plants as a planthouse application per crop from all imidacloprid containing products.

## Fruiting Vegetables (Except Cucurbits) Crop Group 8 and Okra

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

**FRUITING VEGETABLES (EXCEPT CUCURBITS) & OKRA - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Colorado Potato Beetle<br>Flea Beetles<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies<br><br>Disease Suppression:<br>Tomato Mottle Virus<br>Tomato Spotted Wilt Virus<br>Tomato Yellow Leaf Curl Virus | Okra and Peppers:<br>18.8 – 37.6<br>(0.25 – 0.50)<br><br>Other Crops:<br>18.8 – 28.6<br>(0.25 – 0.38) |

**Soil Application Instructions:**

- Make application by one of the following methods and ensure incorporation into the root-zone:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o 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.
  - o As a narrow banded application directly below the eventual seed row during bedding operations 14 or fewer days before planting.
  - o As a post-seeding drench, transplant-water drench, hill drench; or as a subsurface side-dress on both sides of each row.

**Soil Use Restrictions:**

- **Application Restrictions:** Do not use on crops grown for seed.
- **Annual Maximum:**
  - o **Okra and Peppers:**
    - ▪ Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
  - o **Other Crops:**
    - ▪ Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
    - ▪ Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 21 days.

**FRUITING VEGETABLES (EXCEPT CUCURBITS) & OKRA - PLANTHOUSE APPLICATIONS**

| PESTS | USE RATE fl oz product/10,000 plants (lb a.i./10,000 plants) |
|---|---|
| Aphids<br>Whiteflies | 1.17<br>(0.0156) |

*(continued)*

## Fruiting Vegetables (Except Cucurbits) Crop Group 8 and Okra *(continued)*

**FRUITING VEGETABLES (EXCEPT CUCURBITS) & OKRA - PLANTHOUSE APPLICATIONS** *(continued)*

**Planthouse Application Instructions:**

- For application to seedlings in trays in the planthouse not more than 7 days prior to transplanting.
- Make application targeting the soil media (tray drench) by one of the following methods:
  - o By chemigation through injection into an overhead irrigation system.
  - o As a broadcast high-volume foliar spray followed immediately by overhead irrigation with sufficient volume to wash Viloprid FC 1.7 from the foliage into the tray media. Failure to wash from the foliage into the tray media may result in reduce pest control.
- 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.

**Precautions:**

- 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.
- **Application Restrictions:** Do not use on crops grown for seed.
- **Maximum Single Applications:** Do not apply more than 1.17 fl oz of Viloprid FC 1.7 (0.0156 lb a.i.) per 10,000 plants per application.
- **Annual Maximum:**
  - o Do not exceed 1 application of Viloprid FC 1.7 in a planthouse per crop.
  - o Do not exceed 1.17 fl oz of Viloprid FC 1.7 (0.0156 lb a.i.) per 10,000 plants.
  - o Planthouse uses only: do not exceed 0.0156 lb imidacloprid/10,000 plants as a planthouse application per crop from all imidacloprid containing products.

**FRUITING VEGETABLES (EXCEPT CUCURBITS) & OKRA - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Colorado Potato Beetle<br>Leafhoppers<br>Whiteflies | 3.54 – 6.0<br>(0.047 – 0.08) |
| Pepper Weevil[1] (Pepper Only) | 6.0<br>(0.08) |

*(continued)*

## Fruiting Vegetables (Except Cucurbits) Crop Group 8 and Okra *(continued)*

**FRUITING VEGETABLES (EXCEPT CUCURBITS) & OKRA - FOLIAR APPLICATIONS** *(continued)*

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area. For best results direct contact of the spray to the target pests is required.
- Use of Viloprid FC 1.7 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.

**Instructions for Specific Pests:**

- [1]**Pepper weevil:** Make applicates prior to a damaging population becoming established and only make applications by ground equipment (no aerial applications). For best results good coverage of the fruit and foliage is required.

**Foliar Use Restrictions:**

- **Application Timing:**
- **Application Restrictions:** Do not use on crops grown for seed.
- **Annual Maximum:**
  - o Do not exceed 18.1 fl oz of Viloprid FC 1.7 (0.24 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.24 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 5 days apart.
- **Pre-Harvest Interval (PHI):** 0 days

## Grapes

**Including: American bunch grape, muscadine grape, vinifera grape**

**GRAPES - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| European Fruit Lecanium<br>Leafhoppers / Sharpshooters<br>Mealybugs<br>*Phylloxera* spp.[2] | 18.8 – 37.6<br>(0.25 – 0.50) |
| Suppression:<br>Grapeleaf Skeletonizer<br>Nematodes[1]<br>Pierce's Disease | 28.6 – 37.6<br>(0.38 – 0.50) |

*(continued)*

## Grapes *(continued)*

**GRAPES - SOIL APPLICATIONS** *(continued)*

**Soil Application Instructions:**
- Use the listed higher rate per acre 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; for suppression of nematodes.
- Make application by one of the following methods:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As a subsurface side-dress into the root-zone by shanked application on both sides of the plants followed by irrigation.
  - o As a hill drench in sufficient solution volume to ensure incorporation into the root zone. Follow the application with irrigation to aid in incorporation.

**Instructions for Specific Pests:**
- [1]**Nematodes:** Make a single 37.6 fl oz product/A application OR two 18.8 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:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o By the French plow technique followed by irrigation to move the imidacloprid into the entire root-zone of the plant.
- [2]***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.

**Soil Use Restrictions:**
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 30 days.

**GRAPES - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Leafhoppers / Sharpshooters<br>Mealybugs | 2.7 – 3.8<br>(0.036 – 0.05) |
| Grapeleaf Skeletonizer | 3.54 – 3.8<br>(0.047 – 0.05) |

**Foliar Application Instructions:**
- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area. Only apply by ground application.

**Foliar Use Restrictions:**
- **Application Method:** For ground application only, do not apply aerially.
- **Annual Maximum:**
  - o Do not exceed 7.5 fl oz of Viloprid FC 1.7 (0.10 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.10 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 14 days apart.
- **Pre-Harvest Interval (PHI):** 0 days.

## Herb Subgroup 19A

**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 (includes sweet or annual marjoram, wild marjoram or oregano, and pot marjoram); nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; wintergreen; woodruff; and wormwood**

**HERBS - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Whiteflies<br><br>Suppression:<br>Thrips (Foliage Feeding Thrips Only) | 18.8 – 28.6<br>(0.25 – 0.38) |

**Soil Application Instructions:**
- Make application by one of the following:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o As a transplant-water drench or in-furrow spray during setting or transplanting.
  - o Shanked in or below the eventual seed line.

**Precautions:**
- Not all crops and/or varieties have been tested for phytotoxicity from imidacloprid application. It is recommended that the user conducts a small-scale test on a few plants or a small area and observe for phytotoxic effects before treating on a large scale.

**Soil Use Restrictions:**
- **Annual Maximum:**
  - o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 14 days.

**HERBS - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Whiteflies | 3.3<br>(0.044) |

**Foliar Application Instructions:**
- Apply as a ground or aerial application. 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 9.8 fl oz of Viloprid FC 1.7 (0.13 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 5 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Hops

| HOPS - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids | 7.5 – 22.6 (0.10 – 0.30) |

**Soil Application Instructions:**
- Apply at the high rate when treating larger vines; vines with dense foliage volume; or when extended residual control is desired.
- 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 Use Restrictions:**
- **Annual Maximum:**
  - Do not exceed 22.6 fl oz of Viloprid FC 1.7 (0.30 lb a.i.) per acre per calendar year.
  - Soil uses only: do not exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 60 days.

| HOPS - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids | 7.5 (0.10) |

**Foliar Application Instructions:**
- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**
- **Annual Maximum:**
  - Do not exceed 22.6 fl oz of Viloprid FC 1.7 (0.30 lb a.i.) per acre per calendar year.
  - Foliar uses only: do not exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 21 days apart.
- **Pre-Harvest Interval (PHI):** 28 days.

## Leafy Greens Subgroup 4A & 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 (commercial production only); watercress (upland)**

| LEAFY GREENS & WATERCRESS - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies | 12.0 – 28.6 (0.16 – 0.38) |

*(continued)*

## Leafy Greens Subgroup 4A & Watercress *(continued)*

**LEAFY GREENS & WATERCRESS - SOIL APPLICATIONS** *(continued)*

**Soil Application Instructions:**
- 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) 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 root-zone.

**Soil Use Restrictions:**
- **Application Restrictions:**
  - Do not use on crops grown for seed.
  - Do not use on native watercress growing in streams or other bodies of water.
- **Annual Maximum:**
  - Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 21 days.

| LEAFY GREENS & WATERCRESS - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Whiteflies | 3.54 (0.047) |

**Foliar Application Instructions:**
- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.
- For watercress, drain the production field of water at least 24 hours prior to application of Viloprid FC 1.7 and do not reapply water to the field for a minimum of 24 hours following application of Viloprid FC 1.7. Only make applications to fully leafed-up canopies.

**Foliar Use Restrictions:**
- **Application Restrictions:**
  - Do not use on crops grown for seed.
  - Do not use on native watercress growing in streams or other bodies of water.
- **Annual Maximum:**
  - Do not exceed 17.3 fl oz of Viloprid FC 1.7 (0.23 lb a.i.) per acre per calendar year.
  - Foliar uses only: do not exceed 0.23 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 5 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Leafy Petioles Subgroup 4B

**Cardoon; celery; celery, Chinese; celtuce; fennel, Florence; rhubarb; Swiss chard**

| LEAFY PETIOLES - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies | 12.0 – 28.6<br>(0.16 – 0.38) |

**Soil Application Instructions:**

- Make application by one of the following methods and ensure incorporation into the root-zone:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o 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.
  - o As a narrow banded application directly below the eventual seed row during bedding operations 14 or fewer days before planting.
  - o As a post-seeding drench, transplant-water drench, or hill drench.
  - o 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.
- **Annual Maximum:**
  - o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - o Soil uses only: 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 (Succulent or Dried) Crop Group 6 (Except Dry Soybean)

**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**

| LEGUME VEGETABLES (SUCCULENT OR DRIED) (EXCEPT DRY SOYBEAN) - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies<br>Suppression of Symptoms of:<br>Bean Common Mosaic Virus (BCMV)<br>Bean Golden Mosaic Virus (BGMV)<br>Beet Curly Top Hybrigeminivirus (BCTV) | 18.8 – 28.6<br>(0.25 – 0.38) |

**Soil Application Instructions:**

- Make application by one of the following methods:
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o 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.
  - o As a narrow banded application directly below the eventual seed row during bedding operations 7 or fewer days before planting.
  - o As a post-seeding drench, transplant-water drench, or hill drench.
  - o As a subsurface side-dress on both sides of each row – this must be incorporated into the root-zone.

**Soil Use Restrictions:**

- **Application Restrictions:** Do not use on crops grown for seed.
- **Annual Maximum:**
  - o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 21 days.

| LEGUME VEGETABLES (SUCCULENT OR DRIED) (EXCEPT DRY SOYBEAN) - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Whiteflies | 3.3<br>(0.044) |

*(continued)*

## Legume Vegetables (Succulent or Dried) Crop Group 6 (Except Dry Soybean) *(continued)*

| LEGUME VEGETABLES (SUCCULENT OR DRIED) (EXCEPT DRY SOYBEAN) - FOLIAR APPLICATIONS *(continued)* |
|---|
| **Foliar Application Instructions:**<br>• Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area. |
| **Foliar Use Restrictions:**<br>• **Application Restrictions:** Do not use on crops grown for seed.<br>• **Annual Maximum:**<br>o Do not exceed 9.8 fl oz of Viloprid FC 1.7 (0.13 lb a.i.) per acre per calendar year.<br>o Foliar uses only: do not exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.<br>• **Application Interval:** Do not make applications less than 7 days apart.<br>• **Pre-Harvest Interval (PHI):** 7 days. |

## Peanuts

| PEANUTS - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Whiteflies<br><br>Suppression:<br>Thrips | 18.8 – 28.6<br>(0.25 – 0.38) |
| **Soil Application Instructions:**<br>• Make application by one of the following methods:<br>o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.<br>o As an in-furrow spray directed on or below the seed during planting. | |
| **Precautions:**<br>• Applications of imidacloprid products have been observed to cause an increase in the incidence of Tomato spotted wilt virus (TSWV) on multiple varieties of peanuts and this may be the case with other tospoviruses, or other viruses which are transmitted by thrips or other pests. Before applying Viloprid FC 1.7 to peanuts it is recommended you 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 and consult the University of Georgia's tomato spotted wilt virus index before applying an imidacloprid product. | |
| **Soil Use Restrictions:**<br>• **State Restrictions:** Not for use in California.<br>• **Annual Maximum:**<br>o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.<br>o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.<br>• **Pre-Harvest Interval (PHI):** 14 days. | |

*(continued)*

## Peanuts *(continued)*

| PEANUTS - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers<br>Whiteflies<br><br>Suppression:<br>Thrips | 3.3<br>(0.044) |
| **Foliar Application Instructions:**<br>• Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area. | |
| **Foliar Use Restrictions:**<br>• **State Restrictions:** Not for use in California.<br>• **Annual Maximum:**<br>o Do not exceed 9.8 fl oz of Viloprid FC 1.7 (0.13 lb a.i.) per acre per calendar year.<br>o Foliar uses only: do not exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.<br>• **Application Interval:** Do not make applications less than 5 days apart.<br>• **Pre-Harvest Interval (PHI):** 14 days. | |

## Pome Fruits Group 11

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

| POME FRUITS - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids (Including Woolly Apple Aphid)<br>Leafhoppers | 18.8 – 28.6<br>(0.25 – 0.38) |
| **Soil Application Instructions**<br>• Apply by chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. | |
| **Soil Use Restrictions:**<br>• **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.<br>• **Annual Maximum:**<br>o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.<br>o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.<br>• **Pre-Harvest Interval (PHI):** 21 days. | |

| POME FRUITS - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Leafhoppers | 3.8 – 7.5<br>(0.05 – 0.10) |
| Aphids (Except Woolly Apple Aphid)<br>Apple Maggot[1]<br>Leafminers<br>San Jose Scale | 7.5<br>(0.10) |
| For Pears Only:<br>Mealybugs<br>Pear Psylla | 18.8<br>(0.25) |

*(continued)*

## Pome Fruits Group 11 *(continued)*

| POME FRUITS - FOLIAR APPLICATIONS *(continued)* |
|---|
| **Foliar Application Instructions:**<br>• Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area. |
| **Instructions for Specific Pests:**<br>• [1]**Apple maggot:** apply tank mixed with a sticker type adjuvant following adjuvant manufacturers rate instructions. |
| **Foliar Use Restrictions:**<br>• **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.<br>• **Annual Maximum:**<br>o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (0.50 lb a.i.) per acre per calendar year.<br>o Do not exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products including seed, soil, and foliar uses.<br>• **Application Interval:** Do not make applications less than 10 days apart.<br>• **Pre-Harvest Interval (PHI):** 7 days. |

## Pomegranates

| POMEGRANATES - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE<br>fl oz product/A<br>(lb a.i./A)** |
| Aphids<br>Leafhoppers / Sharpshooters<br>Whiteflies | 18.8 – 37.6<br>(0.25 – 0.50) |
| **Soil Application Instructions**<br>• Apply by chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. | |
| **Soil Use Restrictions:**<br>• **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.<br>• **Annual Maximum:**<br>o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (0.50 lb a.i.) per acre per calendar year.<br>o Do not exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products including seed, soil, and foliar uses.<br>• **Pre-Harvest Interval (PHI):** 0 days. | |

| POMEGRANATES - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE<br>fl oz product/A<br>(lb a.i./A)** |
| Aphids<br>Leafhoppers / Sharpshooters<br>Whiteflies<br>Suppression:<br>Disease Scales | 7.5<br>(0.10) |
| **Foliar Application Instructions:**<br>• Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area. | |

*(continued)*

## Pomegranates *(continued)*

| POMEGRANATES - FOLIAR APPLICATIONS *(continued)* |
|---|
| **Foliar Use Restrictions:**<br>• **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.<br>• **Annual Maximum:**<br>o Do not exceed 22.6 fl oz of Viloprid FC 1.7 (0.30 lb a.i.) per acre per calendar year.<br>o Foliar uses only: do not exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.<br>• **Application Interval:** Do not make applications less than 7 days apart.<br>• **Pre-Harvest Interval (PHI):** 7 days. |

## Poplar / Cottonwood

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

| POPLAR / COTTONWOOD - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE<br>fl oz product/A<br>(lb a.i./A)** |
| Aphids<br>Cottonwood Leaf Beetle[1]<br>Suppression:<br>*Phylloxerina popularia* | 18.8 – 37.6<br>(0.25 – 0.50) |
| **Soil Application Instructions:**<br>• Make application by one of the following methods:<br>o By chemigation into the root-zone through low-pressure drip irrigation.<br>o 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 of irrigation. | |
| **Instructions for Specific Pests:**<br>• [1]**Cottonwood leaf beetle:** apply early season when beetles are first feeding to protect against damage. Larger trees may require earlier application due to slower uptake.<br>• [2]***Phylloxerina*:** apply from the break of dormancy through May. | |
| **Soil Use Restrictions:**<br>• **State Restrictions:** Not for use in California.<br>• **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.<br>• **Annual Maximum:**<br>o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (0.50 lb a.i.) per acre per calendar year.<br>o Do not exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products including seed, soil, and foliar uses. | |

| POPLAR / COTTONWOOD - CUTTINGS OR WHIPS SOAK | |
|---|---|
| **PESTS** | **USE RATE<br>fl oz product/100 gallons<br>(lb a.i./100 gallons)** |
| Cottonwood Leaf Beetle<br>Aphids<br>*Phylloxerina popularia* | Unhydrated Cuttings/Whips:<br>15.7 – 31.4<br>(0.2 – 0.4)<br>Partially Hydrated Cuttings/Whips:<br>31.4 – 47.4<br>(0.4 – 0.6) |

*(continued)*

## Poplar / Cottonwood *(continued)*

**POPLAR / COTTONWOOD - CUTTINGS OR WHIPS SOAK** *(continued)*

**Soak Application Instructions:**

- Make application by one of the following methods:
  - o 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.
  - o 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.

**Precautions:**

- Not all *Populus* spp. clones/varieties/hybrids have been tested for phytotoxicity from imidacloprid application. It is recommended that the user conducts a small-scale test on small number of cuttings/whips and evaluated for phytotoxic effects before treating on a large scale.

**Soak Use Restrictions:**

- **State Restrictions:** Not for use in California.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.

**POPLAR / COTTONWOOD - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Cottonwood Leaf Beetle | 3.8 – 7.5<br>(0.05 – 0.10) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**

- **State Restrictions:** Not for use in California.
- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 10 days apart.

## Potatoes

**POTATOES - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) | USE RATE fl oz product/1000 row ft @ 36" rows (lb a.i./1000 row ft @ 36" rows) |
|---|---|---|
| Aphids<br>Colorado Potato Beetle<br>Flea Beetles<br>Leafhoppers<br>Potato Psyllid | | |
| Suppression of Symptoms of:<br>Net Necrosis<br>Potato Leaf Roll Virus (PLRV)<br>Potato Yellows | 15.1 – 23.3<br>(0.20 – 0.31) | 1.04 – 1.60<br>(0.014 – 0.021) |
| Suppression:<br>Wireworms (In-Furrow Spray At-Plant) | | |

**Soil Application Instructions:**

- Make application by one of the following methods and ensure contact with the potato seed pieces or incorporation into the root-zone:
- o As an in-furrow spray directed on the seed pieces during planting.
- o On both sides of the row apply as a subsurface side-dress, covering with 3 or more inches of soil.
- o Apply directly over the row during pre-emergence hilling directed as a narrow band spray at the ground cracking.
- o As a narrow banded application directly below the eventual seed row during bedding operations 7 or fewer days before planting.
- Linear application rates affect the duration and degree on control to a large extent. The linear application rate in the table is based on 36" row spacing. See the **Application and Mixing Instructions** section for more information and application rates for different row spacing. In all cases do not exceed the maximum per acre use restriction.
- If potatoes are grown in highly permeable soils with a shallow water table, make the application with a 2 to 4 inch band (width of the planter shoe opening) and completely cover.

**Soil Use Restrictions:**

- **Annual Maximum:**
  - o Do not exceed 23.3 fl oz of Viloprid FC 1.7 (0.31 lb a.i.) per acre per calendar year.
  - o Soil uses only: do not exceed 0.31 lb imidacloprid per acre per calendar year from all imidacloprid containing products.

**POTATOES - SEED-PIECE TREATMENT**

| PESTS | USE RATE fl oz product/A (lb a.i./A) | USE RATE fl oz product/ 100 lb seed (lb a.i./100 lb seed) |
|---|---|---|
| Aphids<br>Colorado Potato Beetle<br>Flea Beetles<br>Leafhoppers<br>Potato Psyllid<br>Wireworms (Seed-Piece Protection) | 9.5 – 19.0<br>(0.126 – 0.25) | 0.46 – 0.95<br>(0.006 – 0.013) |

*(continued)*

## Potatoes *(continued)*

| POTATOES - SEED-PIECE TREATMENT *(continued)* | | |
|---|---|---|
| Suppression of Symptoms of:<br>Net Necrosis<br>Potato Leaf Roll Virus (PLRV)<br>Potato Yellows | 19.0<br>(0.25) | 0.95<br>(0.013) |

**Seed-Piece Treatment Instructions:**

- Apply as a directed spray onto the potato seed-pieces using a shielded spray system.
  - o Dilute with 3 parts water (or less) to 1 part Viloprid FC 1.7 and agitate or stir the spray solution during application.
  - o Make the application in an area with adequate ventilation or in an area that is equipped to remove spray mist or dust.
  - o A fungicidal or inert absorbent dust may be applied to the potato seed-piece after the Viloprid FC 1.7 application.
- Plant the potato seed-pieces as soon as possible after treatment with Viloprid FC 1.7 and in accordance with your local extension specialist or certified crop advisor recommendations to prevent prolonged exposure of the seed-pieces to sunlight.
- Application rate in the table is based on a seeding rate of 2000 lb of potato seed-pieces per acre. For different seeding rates do not exceed the maximum per acre use restriction.

**Seed-Piece Treatment Restrictions:**

- **Annual Maximum:**
  - o Do not exceed 23.3 fl oz of Viloprid FC 1.7 (0.31 lb a.i.) per acre per calendar year.
  - o Seed-piece treatment uses only: 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.

| POTATOES - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Colorado Potato Beetle<br>Flea Beetles<br>Leafhoppers<br>Potato Psyllid | 3.54<br>(0.047) |

**Foliar Application Instructions:**

- 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 15.1 fl oz of Viloprid FC 1.7 (0.20 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.20 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 7 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Root Vegetables (Except Sugar Beet) Subgroup 1B & Kava

**Beet, garden[1]; burdock, edible[1]; carrot[1]; celeriac (celery root)[1]; chervil, turnip-rooted[1]; chicory[1]; ginseng; horseradish; kava[1]; parsley, turnip-rooted; parsnip[1]; radish[1]; radish, oriental (daikon)[1]; rutabaga[1]; salsify (oyster plant); salsify, black[1]; salsify, Spanish; skirret; turnip[1]. ([1]Tops or greens from these crops may be utilized for food or feed).**

| ROOT VEGETABLES (EXCEPT SUGAR BEET) & KAVA - SOIL APPLICATIONS | | |
|---|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** | **USE RATE fl oz product/1000 row ft @ 36" rows (lb a.i./1000 row ft @ 36" rows)** |
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies | 12.0 – 28.6<br>(0.16 – 0.38) | 0.83 – 1.97<br>(0.011 – 0.026) |

**Soil Application Instructions:**

- Make application by one of the following methods:
  - o By chemigation into the root-zone through low-pressure drip, or trickle irrigation.
  - o As an in-furrow spray directed on or below the seed during planting.
  - o Shanked in 1" – 2" below the seed depth during planting.
  - o As a narrow (2" or less) banded application directly below (1-2 inches) the eventual seed row during bedding operations 14 or fewer days before planting.
- Linear application rates affect the duration and degree on control to a large extent. The linear application rate in the table is based on 36" row spacing. See the **Application and Mixing Instructions** section for more information and application rates for different row spacing. In all cases do not exceed the maximum per acre use restriction.
- 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.
- **Annual Maximum:**
  - o Do not exceed 1 application of Viloprid FC 1.7 per acre per calendar year.
  - o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 21 days.

| ROOT VEGETABLES (EXCEPT SUGAR BEET) & KAVA - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Whiteflies | 3.3<br>(0.044) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

*(continued)*

## Root Vegetables (Except Sugar Beet) Subgroup 1B & Kava *(continued)*

**ROOT VEGETABLES (EXCEPT SUGAR BEET) & KAVA - FOLIAR APPLICATIONS** *(continued)*

**Foliar Use Restrictions:**

- **State Restrictions:** Not for use in California.
- **Application Restrictions:** Do not use on crops grown for seed.
- **Annual Maximum:**
  - **Radish:**
    - Do not exceed 1 application of Viloprid FC 1.7 per acre per calendar year.
    - Do not exceed 3.3 fl oz of Viloprid FC 1.7 (0.044 lb a.i.) per acre per calendar year.
    - Foliar uses only: 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 Viloprid FC 1.7 per acre per calendar year.
    - Do not exceed 9.8 fl oz of Viloprid FC 1.7 (0.13 lb a.i.) per acre per calendar year.
    - Foliar uses only: do not exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 5 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Soybeans

**SOYBEANS - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Bean Leaf Beetle<br>Cucumber Beetles<br>Japanese Beetle (Adults)<br>Leafhoppers<br>Rootworm (Adults)<br>Whiteflies | 3.54<br>(0.047) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**

- **State Restrictions:** Not for use in California.
- **Annual Maximum:**
  - Do not exceed 10.5 fl oz of Viloprid FC 1.7 (0.14 lb a.i.) per acre per calendar year.
  - Foliar uses only: do not exceed 0.14 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 7 days apart.
- **Pre-Harvest Interval (PHI):** 21 days.

## Stone Fruit Crop Group 12

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

**STONE FRUIT - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids (Including Woolly Apple Aphid)<br>Leafhoppers | 18.8 – 28.6<br>(0.25 – 0.38) |

**Soil Application Instructions**

- 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 pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 21 days.

**STONE FRUIT - PRE-PLANT ROOT DIP APPLICATIONS**

| PESTS | USE RATE fl oz product/10 gallons (lb a.i./10 gallons) |
|---|---|
| Black Peach Aphid (Infesting Roots) | 2.35<br>(0.03) |

**Pre-Plant Root Dip Application Instructions:**

- Mix 2.35 fl oz of Viloprid FC 1.7 per 10 gallons of water and soak the bare-root transplant in the solution for up to 5 minutes ensuring to thoroughly wet the transplant to slightly above the graft union.
- Allow the solution to dry on to the roots of the transplant following the treatment.

**STONE FRUIT - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Green June Beetle<br>Japanese Beetle<br>Leafhoppers / Sharpshooters<br>Plant Bugs<br>Rose Chafer<br>San Jose Scale | 3.8 – 7.5<br>(0.05 – 0.10) |
| Cherry Fruit Fly | 5.3 – 7.5<br>(0.07 – 0.10) |
| Suppression:<br>Plum Curculio | 7.5<br>(0.10 |

*(continued)*

## Stone Fruit Crop Group 12 *(continued)*

**STONE FRUIT - FOLIAR APPLICATIONS** *(continued)*

**Foliar Use Restrictions:**

- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Application Volume:** Apply in a minimum of 50 gallons per acre by ground or 25 gallons per acre by air.
- **Annual Maximum:**
  - **Apricots, Nectarines, Peaches:**
    - Do not exceed 22.6 fl oz of Viloprid FC 1.7 (0.30 lb a.i.) per acre per calendar year.
    - Foliar uses only: do not exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
  - **Cherries, Plumbs, Plumcots, Prunes:**
    - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **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.

## Strawberries

**STRAWBERRIES - SOIL (ANNUAL AND PERENNIAL) APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Whiteflies | 28.6 – 37.6<br>(0.38 – 0.50) |

**Soil (Annual and Perennial) Application Instructions:**

- 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 for 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 banded spray over the row in a minimum of 20 gallons of spray volume. Immediately follow the application with an overhead irrigation to incorporate the product into the root-zone.
- Do not use plastic or other mulches that will limit the movement of imidacloprid into the root zone.
- The rate of Viloprid FC 1.7 applied will affect the length of control. Use higher rates where infestations may occur later in crop development or where pest pressure is continuous.

*(continued)*

## Strawberries *(continued)*

**STRAWBERRIES - SOIL (ANNUAL AND PERENNIAL) APPLICATIONS** *(continued)*

**Soil Use (Annual and Perennial) Restrictions:**

- **Application Method:** Do not apply both soil application methods on the same crop in the same season.
- **Application Timing:** Do not apply immediately prior to bud opening, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 14 days.

**STRAWBERRIES - 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) | 18.8 – 28.6<br>(0.25 – 0.38) |

**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.
- Make application by one of the following methods:
  - As a ground application in a minimum of 20 gallons of final spray 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 Viloprid FC 1.7 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 solution volume followed by 0.1 – 0.25" of irrigation.
- Soil-surface applications must be followed by 0.25" of irrigation or rainfall per acre within 2 hours of application to move imidacloprid into the egg-deposition zone or decreased activity may result.

**Soil Use (Perennial Post-Harvest) Restrictions:**

- **Application Method:** Do not apply both soil application methods on the same crop in the same season.
- **Application Timing:** Do not apply immediately prior to bud opening, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - Soil (perennial post-harvest) uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):** 14 days.

*(continued)*

## Strawberries *(continued)*

| STRAWBERRIES - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Spittlebugs<br>Whiteflies | 3.54<br>(0.047) |

**Foliar Application Instructions:**
- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**
- **Application Timing:** Do not apply within 10 days prior to bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - o Do not exceed 10.5 fl oz of Viloprid FC 1.7 (0.14 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.14 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 5 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Tobacco

| TOBACCO - SOIL OR TRAY DRENCH APPLICATIONS | | |
|---|---|---|
| **PESTS** | **USE RATE Seedling Tray Drench fl oz product/1000 Plants (lb a.i./1000 plants)** | **USE RATE In-Furrow or Transplant Water fl oz product/ 1000 Plants (lb a.i./1000 plants)** |
| Aphids<br>Flea Beetles | 1.4<br>(0.019) | 1.6<br>(0.021) |
| Mole Crickets<br>Whiteflies<br>Wireworms<br>Suppression: Cutworms<br>Suppression of Symptoms of: Tomato Spotted Wilt Virus (TSWV) | 1.6 – 3.2<br>(0.021 – 0.029) | 2.2 – 3.2<br>(0.029 – 0.043) |

**Soil Application Instructions:**
- Make application by one of the following methods:
  - o 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 Viloprid FC 1.7 from the foliage into the tray media. Failure to wash from the foliage into the tray media may result in reduced pest control.
  - o As an in-furrow spray or transplant water drench during setting.
  - o By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- Tray drench applications have been shown to be the most efficacious application method, however Viloprid FC 1.7 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.

*(continued)*

## Tobacco *(continued)*

**TOBACCO - SOIL OR TRAY DRENCH APPLICATIONS** *(continued)*

**Precautions:**
- Handle transplants carefully during setting to avoid dislodging the tray media from the roots.
- Adverse tobacco growing conditions may cause a delay in the uptake of imidacloprid into the plant and cause a delay in control.

**Soil Use Restrictions:**
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 14 days.

| TOBACCO - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids | 1.9 – 3.8<br>(0.025 – 0.05) |
| Flea Beetles<br>Japanese Beetle | 3.8<br>(0.05) |

**Foliar Application Instructions:**
- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area. For best results direct contact of the spray to the target pests is required.

**Foliar Use Restrictions:**
- **Annual Maximum:**
  - o Do not exceed 21.1 fl oz of Viloprid FC 1.7 (0.28 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.28 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 7 days apart.
- **Pre-Harvest Interval (PHI):** 14 days.

## Tree Nut Crop Group 14 (Except Almond) and Pistachio

**Beechnut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; pistachio; walnut, black and English**

| TREE NUTS (EXCEPT ALMOND) & PISTACHIO - SOIL APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids<br>Leafhoppers / Sharpshooters<br>Mealybugs<br>Spittlebugs<br>Whiteflies<br><br>Suppression of Symptoms of:<br>Pecan Scab (From Reduction in Honeydew Deposition) | 18.8 – 37.6<br>(0.25 – 0.50) |
| Suppression:<br>Thrips (Foliage Feeding Thrips Only) | 37.6<br>(0.50) |

**Soil Application Instructions**

- Apply at the higher rate when applying by shank or subsurface side dress, using on larger trees, soils with high clay content, high tree populations, and/or when extended control is desired.
- 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.
  - As a subsurface side-dress or shank just above or near the top of the root-zone between the trunk and the drip line of the tree canopy. Make the application in a minimum of 10 gallons solution volume per acre using multiple shanks on both sides of the tree. Make sure the placement is below sod or orchard floor debris. Apply irrigation covering the entire area of application within 48 hours of application to promote uptake by the root system.
- Control may not occur for 14 or more days or until 2 irrigations have been made under some circumstances.
- Reduced efficacy may occur when making applications later in the season.

**Soil Use Restrictions:**

- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 7 days.

*(continued)*

## Tree Nut Crop Group 14 (Except Almond) and Pistachio *(continued)*

| TREE NUTS (EXCEPT ALMOND) & PISTACHIO - FOLIAR APPLICATIONS | |
|---|---|
| **PESTS** | **USE RATE fl oz product/A (lb a.i./A)** |
| Aphids (Except Black Pecan Aphid)<br>Leafhoppers<br>*Phylloxera* spp. (Leaf Infestations)<br>Sharphooters<br>Spittlebugs<br>Whiteflies | 3.3 – 6.8<br>(0.044 – 0.09) |
| Black Pecan Aphid<br>Mealybugs<br>San Jose Scale[1] | 7.5<br>(0.10) |

**Instructions for Specific Pests:**

- [1]**San Jose Scale:** Make applications to each successive generation timed to the crawler stage. 2 applications on a 10- to 14-day interval may be required to achieve control.

**Foliar Use Restrictions:**

- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Application Volume:** Apply in a minimum of 50 gallons per acre by ground or 25 gallons per acre by air.
- **Annual Maximum:**
  - Do not exceed 27.1 fl oz of Viloprid FC 1.7 (0.36 lb a.i.) per acre per calendar year.
  - Foliar uses only: do not exceed 0.36 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Application Interval:** Do not make applications less than 6 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## 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**

**TROPICAL FRUITS - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Avocado Lace Bug<br>Leafhoppers<br>Whiteflies | 28.6 – 37.6<br>(0.38 – 0.50) |
| Suppression:<br>Scales<br>Thrips (Foliage Feeding Thrips Only) | 37.6<br>(0.50) |

**Soil Application Instructions**

- 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 pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Pre-Harvest Interval (PHI):** 6 days.

**TROPICAL FRUITS - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Leafhoppers / Sharpshooters<br>Mealybugs<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies<br>Disease Suppression:<br>Scales | 7.5<br>(0.10) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

**Foliar Use Restrictions:**

- **Application Timing:** Do not apply pre-bloom, during bloom, or when bees are foraging.
- **Annual Maximum:**
  - o Do not exceed 37.6 fl oz of Viloprid FC 1.7 (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 including seed, soil, and foliar uses.
- **Application Interval:** Do not make applications less than 10 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

## Tuberous and Corm Vegetables Subgroup 1C

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

**TUBEROUS AND CORM VEGETABLES - SOIL APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) | USE RATE fl oz product/1000 row ft @ 36" rows (lb a.i./1000 row ft @ 36" rows) |
|---|---|---|
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Thrips (Foliage Feeding Thrips Only)<br>Whiteflies | 12.0 – 28.6<br>(0.16 – 0.38) | 0.83 – 1.97<br>(0.011 – 0.026) |

**Soil Application Instructions:**

- Make application by one of the following methods:
  - o As an in-furrow spray directed over the planting material (hulis) during planting.
  - o Shanked in 1" – 2" below the hulis depth during planting.
  - o As a side-dress of not more than 0.70 fl oz Viloprid FC 1.7/1000 row ft no later than 45 days after planting, following the pre-harvest interval below.
- Linear application rates affect the duration and degree on control to a large extent. The linear application rate in the table is based on 36" row spacing. See the **Application and Mixing Instructions** section for more information and application rates for different row spacing. In all cases do not exceed the maximum per acre use restriction.
- 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.
- **Annual Maximum:**
  - o Do not exceed 1 application of Viloprid FC 1.7 per acre per calendar year.
  - o Do not exceed 28.6 fl oz of Viloprid FC 1.7 (0.38 lb a.i.) per acre per calendar year.
  - o Soil uses only: do not exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **Pre-Harvest Interval (PHI):**
  - o **Corms:** 125 days.
  - o **Leaves:** 3 days.

**TUBEROUS AND CORM VEGETABLES - FOLIAR APPLICATIONS**

| PESTS | USE RATE fl oz product/A (lb a.i./A) |
|---|---|
| Aphids<br>Flea Beetles<br>Leafhoppers<br>Whiteflies | 3.3<br>(0.044) |

**Foliar Application Instructions:**

- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

*(continued)*

## Tuberous and Corm Vegetables Subgroup 1C

*(continued)*

**TUBEROUS AND CORM VEGETABLES - FOLIAR APPLICATIONS**
*(continued)*

**Foliar Use Restrictions:**

- **State Restrictions:** Not for use in California.
- **Application Restrictions:** Do not use on crops grown for seed.
- **Annual Maximum:**
  - o Do not exceed 3 applications of Viloprid FC 1.7 per acre per calendar year.
  - o Do not exceed 9.8 fl oz of Viloprid FC 1.7 (0.13 lb a.i.) per acre per calendar year.
  - o Foliar uses only: do not exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- **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 less than or equal to 5 gallons - Non-refillable 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 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.

VILOPRID and VIVE CROP PROTECTION are registered trademarks of Vive Crop Protection Inc.

## NOTES

## NOTES

## NOTES

| IMIDACLOPRID | GROUP 4A | INSECTICIDE |
|---|---|---|

# VILOPRID™ FC[1.7] Insecticide

| **Active Ingredient:** | **By Wt** |
|---|---|
| Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-*N*-nitro-2-imidazolidinimine | 18.5% |
| **Other Ingredients:** | 81.5% |
| **Total:** | 100.0% |

This product contains 1.7 pounds of active ingredient per gallon

## KEEP OUT OF REACH OF CHILDREN

# CAUTION

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

**EPA Reg. No. 89118-9**

| FIRST AID | |
|---|---|
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.<br>• Call a poison control center or doctor for treatment advice. |

**Note to Physician:**
This product is a neonicotinoid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

**EMERGENCY INFORMATION**
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In the event of a medical or chemical emergency contact Chemtel Inc. in North America at 1-800-255-3924 or worldwide international at +1-813-248-0585

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**Caution.** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or 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.

## 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 less than or equal to 5 gallons - Non-refillable 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 IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

## Net Contents: 2.5 Gallons

Vive Crop Protection Inc.
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