

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Sally S. Christopher Valent U.S.A. Corporation 1600 Riviera Ave, Suite 200 Walnut Creek, CA 94596

OCT 5 2010

Dear Ms. Christopher:

Subject:

Labeling Amendment; Correction to Restrictions

V-10170 2.13 SC Insecticide EPA Registration No. 59639-150

Submission Date: September 23, 2010 (originally submitted as notification)

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following provision:

1. Directly adjacent to "[MASTER LABEL]", found on the first page of the label, include a statement that explains that the master label is comprised of a sublabel 1 and a sublabel 2.

A stamped copy is enclosed for your records. Please submit one (1) final printed copy for the referenced label, incorporating the above change, before releasing the product for shipment. If you have any questions regarding this letter, please contact Kable Bo Davis at (703) 306-0415 or <a href="mailto:davis.kable@epa.gov">davis.kable@epa.gov</a>.

Sincerely yours,

Venus Eagle

Product Manager (01)

Insecticide-Rodenticide Branch Registration Division (7505P)

Enclosure-Stamped Label



GROUP INSECTICIDE

[MASTER LABEL]

# V-10170 2.13 SC INSECTICIDE

FOR CONTROL OF LISTED SUCKING AND CHEWING INSECTS INFESTING COTTON, CRANBERRY (LOW-GROWING BERRY, EXCEPT STRAWBERRY), FRUITING VEGETABLES (INCLUDING CUCURBITS), FIG, GRAPE, LEAFY VEGETABLES (INCLUDING BRASSICA VEGETABLES), PEACH, POME FRUIT, POMEGRANATE, SOYBEAN, TOBACCO, TREE NUTS AND TUBEROUS AND CORM VEGETABLES (INCLUDING POTATO AND SWEET POTATO).

FOR SYSTEMIC CONTROL OF LISTED INSECTS ON ORNAMENTAL PLANTS, NON-BEARING FRUIT AND NUTS GROWN IN FIELD NURSERY PLANTINGS, CONTAINER NURSERIES, FOREST NURSERIES, GREENHOUSES, LATH AND SHADE HOUSES, INTERIORSCAPES AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES, SOD FARMS AND TURFGRASS

Active Ingredient	By Wt.
*Clothianidin	23.60%
Other Ingredients	<u>76.40%</u>
Total	100.00%

\*(E)-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine

Contains 2.13 lbs active ingredient per gallon

# **KEEP OUT OF REACH OF CHILDREN**

# **CAUTION**

SEE NEXT PAGE FOR PRECAUTIONARY STATEMENTS

**NET WEIGHT** 

EPA Reg. No. 59639-150 EPA Est. No. ACCEPTED with COMMENTS
In EPA Letter Dated:

OCT 5 2010

Under the Federal Insecticide, Functione, and Rodonticide Act, as amended, for the pesticide registered under EPA Reg. No.

# Sub Label 1

V-10170 2.13 SC Insecticide

For control of listed sucking and chewing insects infesting Cotton, Cranberry (Low-growing Berry, Except Strawberry), Fig, Fruiting Vegetables (including Brassica Vegetables), Grape, Leafy Vegetables (including Brassica Vegetables), Peach, Pome Fruit, Pomegranate, Soybean, Tobacco, Tree Nuts and Tuberous and Corm Vegetables (including Potato and Sweet Potato)



GROUP MAN INSECTICIDE

[Bracketed text is editorial notes]

# V-10170 2.13 SC

# INSECTICIDE

FOR CONTROL OF LISTED SUCKING AND CHEWING INSECTS INFESTING COTTON, CRANBERRY (LOW-GROWING BERRY, EXCEPT STRAWBERRY), FIG, FRUITING VEGETABLES (INCLUDING CUCURBITS), GRAPE, LEAFY VEGETABLES (INCLUDING BRASSICA VEGETABLES), PEACH, POME FRUIT, POMEGRANATE, SOYBEAN, TOBACCO, TREE NUTS AND TUBEROUS AND CORM VEGETABLES (INCLUDING POTATO AND SWEET POTATO)

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EPA Reg. No. 59639-150

EPA Est. No.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if swallowed.

#### **FIRST AID**

If swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

#### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves made of any waterproof material.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. 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 cleaning equipment or disposing of equipment washwaters or rinsate.

This product is toxic to bees exposed to treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period.

#### **DIRECTIONS FOR USE**

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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

### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, shoes plus socks, chemical resistant gloves made of any waterproof material.

#### DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

#### **RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

#### LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

#### LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR 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 THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

#### PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

#### NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

#### TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

#### RESISTANCE MANAGEMENT

*V-10170 2.13 SC* Insecticide contains clothianidin, which is classified in the Group 4A of insecticide classes. Insect biotypes that have developed insensitivity to Group 4A (neonicotinoid) insecticides can eventually dominate the insect population in the same field. That is most likely to happen when Group 4A insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by *V-10170 2.13* SC Insecticide or other Group 4A insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of V-10170 2.13 SC Insecticide or other Group 4A insecticides that have a similar target site of action on the same insect species and/or insect species inadvertently exposed to the applications (non-target pests).
- Using tank mixtures or premixes with insecticides from a different class of chemistry, which must be registered products for the same commodity and use pattern, with different sites of action can help to reduce the generation of resistance.
- Do not make foliar applications of neonicotinoid insecticides (Group 4A) after soil applications of V-10170 2.13 SC Insecticide.
- Utilizing a comprehensive Integrated Pest Management (IPM) program while controlling insect pests.
- When possible screen treated insect populations for insensitivity to Group 4A insecticides
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for insecticide resistance management or IPM recommendations for the specific site and resistant pest problems.

For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at 800-682-5368.

#### RESTRICTIONS

*V-10170 2.13 SC* Insecticide is an insecticide for broad spectrum control of insects infesting cotton, cranberry (low-growing berry, except strawberry), fruiting vegetables (including cucurbits), fig, grape, leafy vegetables (including brassica vegetables), peach, pome fruit, pomegranate, soybean, tobacco, tree nuts and tuberous and corm vegetables (including potato and sweet potato). When applied as directed, *V-10170 2.13 SC* Insecticide provides excellent and long residual control.

- Regardless of formulation or type of application (seed treatment, soil or foliar), do not apply more than a total of 0.2 lbs active ingredient clothianidin per acre per season for all crops.
- If the maximum season limit of clothianidin as mentioned above has been applied and
  pest populations require additional treatments, use another registered pesticide that is
  not in the neonicotinoid class of chemistry.
- Do not apply by air except for cotton, potato and soybean.
- Do not incorporate an adjuvant with this product on almond, cranberry (low-growing berry, except strawberry), fruiting vegetables (including cucurbits), leafy vegetables (including brassica vegetables) and peach.

ROTATIONAL CROP PLANT-BACK INTERVALS				
Crops Planted	Immediate Plant- Back	30-day Plant-Back	8 Month Plant-Back	12 Month Plant-Back
Cotton, Fruiting Vegetables (including Cucurbits), Leafy Vegetables (including Brassica Vegetables), Soybean and Tuberous and Corm Vegetables	Cereal Grains (except Rice), Cotton, Fruiting Vegetables (including Cucurbits), Leafy Vegetables (including Brassica Vegetables), Soybean, Bulb Vegetables, Root and Tuber Vegetables, Rapeseed, Sorghum, Canola, Corn (Field, Pop and Sweet)	Dry Beans, Grasses, Non- grass Animal Feeds, Rice	Sugarcane	Any crops without an earlier plant- back interval

#### **PLANT TOLERANCE**

Neither the manufacturer nor the seller has determined whether or not *V-10170 2.13 SC* Insecticide can be used safely on all cultivars registered for use. *V-10170 2.13 SC* Insecticide has been tested on many cultivars with no phytotoxicity observed at label rates. Since all plant species and their varieties and cultivars have not been tested for tolerance, it is recommended that a small number of plants be sprayed to make certain that no phytotoxicity occurs, prior to any large scale application to plants. The end user assumes all risks arising from application of *V-10170 2.13 SC* Insecticide in a manner inconsistent with its labeling.

V-10170 2.13 SC Insecticide can be tank mixed. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments and adjuvants and surfactants. Conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large-scale use.

#### MIXING INSTRUCTIONS

- 1. Begin with clean equipment.
- 2. Add sufficient clean water to the spray tank for 1/2 of the mix load.
- 3. Start tank agitation.
- 4. Add and properly suspend the necessary amount of V-10170 2.13 SC Insecticide according to established tank mix instructions. Agitate to ensure thorough mixing while adding the remaining required water. A high quality wetting agent or other spray adjuvant, approved for use on your crop, may be added to spray solutions according to the manufacturer's use instructions. V-10170 2.13 SC Insecticide must be properly suspended and diluted prior to the addition of any adjuvant. Consult adjuvant label or manufacturer for crop tolerance and safety information when used with this product.
- 5. Maintain agitation during mixing and application.
- 6. Apply with properly calibrated spray equipment.

#### SPRAY DRIFT MANAGEMENT

Do not allow this product to drift onto neighboring crops or non-crop areas or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues or other undesirable results may occur.

Applicator is responsible for employing practices that will minimize spray drift at the application site. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

### **APPLICATION PROCEDURES**

### Foliar Application

Select spray nozzles which will provide accurate and uniform spray deposition. Use spray nozzles which provide medium sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State and County Extension Service.

Apply *V-10170 2.13 SC* Insecticide using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Do not make applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

# Aerial Application for Cotton, Potato and Soybean Only

Apply V10170 2.13 SC Insecticide with the required amount of carrier to provide thorough coverage of the crop's foliage. Applications by air need to be done using a minimum of 3 gallons per acre. Do not apply V10170 2.13 SC Insecticide when the risk of excessive drift is expected due to temperature inversion, wind patterns and humidity. To prevent drift into neighboring crops and bodies of water obey the following: Consider the direction of the wind in relation to the spraying pattern that the aircraft will have to follow to make the application. Do not apply if wind direction can push droplets towards other crops and bodies of water. Do not apply V10170 2.13 SC Insecticide when wind speeds are approaching 10 mph and consider droplet size. Smaller droplets, which include smaller than 200 microns, are more likely to cause drift. Consider a larger size droplet that also provides good coverage on the crop canopy. Nozzle orientation and boom size must be based on the wing span and type of aircraft (e.g. fixed wing vs rotary wing) to consider air streams, vortices and lift properties of the aircraft.

# **Application Through Irrigation Systems (Chemigation)**

V-10170 2.13 SC Insecticide alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems. Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment. Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts. 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.

# **Using Water from Public Water Systems**

• Do not apply *V-10170 2.13 SC* Insecticide through any irrigation system physically connected to a public water system.

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 per year. *V-10170 2.13 SC* Insecticide may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank. Any irrigation system using water supplied from a public water system must also meet the following requirements:

# Operating Instructions for All Specified Types of Irrigation Systems

- 1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts.
- 2. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. 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.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop
  the water pump motor when the water pressure decreases to the point where pesticide
  distribution is adversely affected.
- 7. 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.
- 8. Do not apply when wind speed favors drift beyond the area intended.

# Calibration and Application Instructions

Apply V-10170 2.13 SC Insecticide under the schedule specified in the specific crop use recommendations, not according to the irrigation schedule, unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 to 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Check with State and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

# **Center Pivot Irrigation Equipment**

- 1. Use only drive systems that provide uniform water distribution.
- 2. Do not use end guns when chemigating *V-10170 2.13 SC* Insecticide through center pivot systems because of non-uniform application.
- 3. Plug the first nozzle closest to the well head to protect the water source.
- 4. Determine the size of the area to be treated.
- 5. Determine the time required to apply 0.1 to 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. Run the system at 80 to 95% of the manufacturer's rated maximum travel speed.
- 6. Using water, determine the injection pump output when operated at normal line pressure.
- 7. Determine the amount of *V-10170 2.13 SC* Insecticide, and any tank mix partners, required to treat the area covered by the irrigation system.
- 8. Add the required amount of *V-10170 2.13 SC* Insecticide, and any tank mix partners, and sufficient water to meet the injection time requirements to the solution tanks. (See "Mixing Instructions" section of this label.)
- 9. Make sure the system is fully charged with water before starting injection of the *V-10170* 2.13 SC Insecticide solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- 10. Maintain constant agitation in the solution tank during the injection period.
- 11. Inject the specified amount of *V-10170 2.13 SC* Insecticide per acre continuously for one complete revolution of the system.
- 12. Stop the injection equipment after treatment is complete. Continue to operate the system until the *V-10170 2.13* SC Insecticide solution has cleared all of the sprinkler heads.
- 13. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

# Solid Set, Hand Move and Moving Wheel Irrigation Equipment

- 1. Determine the acreage covered by the sprinklers.
- 2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 40 minute time interval.
- 3. Determine the amount of V-10170 2.13 SC Insecticide required to treat the area covered by the irrigation system.
- 4. Add the required amount of *V-10170 2.13 SC* Insecticide, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See "Mixing Instructions" section of this label.)
- 5. Operate the system at the same pressure and time interval established during the calibration.
- 6. Inject specified amount of *V-10170 2.13 SC* Insecticide per acre for either a 20 to 40 minute period at the end of a regular irrigation set, or as a 20 to 40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
- 7. Stop injection equipment after treatment is completed. Continue to operate the system until the *V-10170 2.13 SC* Insecticide solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

# **BRASSICA (COLE) LEAFY VEGETABLES**

Broccoli; Broccoli Raab (Rapini); Brussels Sprout; Cabbage; Cauliflower; Cavalo Broccolo; Chinese Broccoli (Gai Lon); Chinese Cabbage (Bok Choy and Napa); Chinese Mustard Cabbage; Collards; Kale; Kohlrabi; Mizuna; Mustard Greens; Mustard Spinach; Rape Greens; Turnip Greens

FOLIAR APPLICATION		
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Aphids Bagrada Bugs Flea Beetles Harlequin Bugs Leafhoppers Stinkbugs Whiteflies (suppression)	3 to 4 fl oz/A (0.05 to 0.067 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.  Choose lower rate for light infestation and the higher rate for heavy infestation.  Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.

- Do not apply more than 12 fl oz (0.2 lb ai) of *V-10170 2.13 SC* Insecticide per acre per season.
- Do not apply an adjuvant with this product.
- Do not apply treatments less than 7 days apart.
- Do not apply within 21 days of harvest.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.

Brassica (Cole) Leafy Vegetables continued

SOIL APPLICATION			
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Flea Beetles Harlequin Bugs Leafhoppers Leafminers (suppression) Thrips (suppression) Whiteflies (suppression)	9 to 12 fl oz/A (0.15 to 0.2 lb ai/A)	<ul> <li>Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods:</li> <li>1. In a narrow band centered on the plant row in the bedding operation just prior to planting.</li> <li>2. In-furrow spray at planting directed on or below seed/transplant.</li> <li>3. As a sidedress to both sides of the row.</li> <li>4. Seeding drench or as transplant water drench.</li> <li>5. Chemigation into root zone through drip, trickle or custom made systems that target the watering of the root zone of the plant.</li> </ul>	

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Apply *V-10170 2.13* SC Insecticide at planting. *V-10170 2.13* SC Insecticide must not be applied during bloom or if bees are actively foraging.

FOLIAR APPLICATION		
Aphids <sup>1</sup> Flea Beetles Fleahoppers Lygus/Plant Bugs Stinkbugs Thrips (suppression) Whiteflies (suppression)	3 to 6 fl oz/A (0.05 to 0.1 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.  Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. Use between 3 to 10 gallons per acre for aerial applications.

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not apply treatments less than 7 days apart.
- Do not apply within 21 days of harvest.

Heavy infestations of aphids might require two applications of the highest rate to achieve control. V-10170 2.13 SC Insecticide will not control cotton aphids in regions where insensitivity to neonicotinoid insecticides has been reported.

#### **CUCURBIT VEGETABLES**

Acorn Squash; Balsam Apple; Balsam Pear; Bitter Melon; Butternut Squash; Calabaza; Cantaloupe; Casaba; Chayote; Chinese Cucumber; Chinese Okra; Chinese Waxgourd (Chinese Preserving Melon); Citron Melon; Crenshaw Melon; Crookneck Squash; Cucumber; Cucuzza; Edible Gourd; Gherkin; Golden Pershaw Melon; Hechima; Honey Balls; Honeydew Melon; Hubbard Squash; Hyotan; Mango Melon; Momordica spp.; Muskmelon; Persian Melon; Pineapple Melon; Pumpkin; Santa Claus Melon; Scallop Squash; Snake Melon; Spaghetti Squash; Straightneck Squash; Summer Squash; True Cantaloupe; Vegetable Marrow; Watermelon; Winter Squash; Zucchini

FOLIAR APPLICATION			
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Cucumber Beetles Flea Beetles Leafhoppers Squash Bugs Stinkbugs Whiteflies (suppression)	3 to 4 fl oz/A (0.05 to 0.067 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.  Choose lower rate for light infestation and the higher rate for heavy infestation.  Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.	

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not incorporate an adjuvant with this product.
- Do not apply treatments less than 7 days apart.
- Do not apply within 21 days of harvest.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.

**Cucurbit Vegetables** continued

SOIL APPLICATION			
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Cucumber Beetles Flea Beetles Leafhoppers Leafminers (suppression) Thrips (suppression) Whiteflies (suppression)	9 to 12 fl oz/A (0.15 to 0.2 lb ai/A)	<ul> <li>Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods:</li> <li>1. In a narrow band centered on the plant row in the bedding operation just prior to planting.</li> <li>2. In-furrow spray at planting directed on or below seed/transplant.</li> <li>3. As a sidedress to both sides of the row.</li> <li>4. Seeding drench or as transplant water drench.</li> <li>5. Chemigation into root zone through drip, trickle or any custom made systems that target the watering of the root zone of the plants.</li> </ul>	

Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.

Apply V-10170 2.13 SC Insecticide at planting.
V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.



# CRANBERRY (LOW-GROWING BERRY EXCEPT STRAWBERRY)

Bearberry, Bilberry, Cloudberry, Cranberry, Lingonberry, Lowbush Blueberry, Muntries, Partridgeberry and varieties, and/or cultivars of these

### **FOLIAR POST BLOOM APPLICATION**

Pests	V-10170 2.13 SC Insecticide Application Rate	Special Instructions
Blackheaded Fireworm (suppression) Cranberry Fruitworm (suppression) Cranberry Weevil Flea Beetles Leafhoppers Sparganothis Fruitworm (suppression) Tipworm (suppression)	4 fl oz/A (0.067 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established  Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control.

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not incorporate an adjuvant with this product.
- Do not apply treatments less than 7 days apart.
- Do not apply within 21 days of harvest.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.

#### SOIL POST BLOOM APPLICATION

Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Cranberry Weevil Flea Beetles Tipworm White Grubs	12 fl oz/A (0.2 lb ai/A)	Make one post bloom soil application as indicated below. Irrigate with a minimum of 0.2 inch of water within 2 hours of application (if rainfall occurs within the 2 hours irrigation may not be necessary).
		<ul> <li>Apply specified dose to soil by one of the following methods:</li> <li>1. As a ground application soil spray directed to the root and crown area.</li> <li>2. As a chemigation application.</li> </ul>

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not apply within 21 days of harvest.

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# FOLIAR POST BLOOM APPLICATION

Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Dried Fruit Beetles Fig Scale	4 to 6 fl oz/A (0.067 to 0.1 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.
		The amount of <i>V-10170 2.13 SC</i> Insecticide per acre will depend on tree size and pest pressure.
		Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestations and/or larger trees.
		Apply by ground 100 to 400 gallons per acre as a full coverage spray. Spray volume will depend on tree size and density of canopy. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.
		Repeat applications as needed to maintain control but do not apply more often than every 14 days. A single application may result in suppression only.

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per season.
- Do not apply treatments less than 14 days apart.
- Do not apply within 7 days of harvest.
- Do not feed or allow livestock to graze on cover crops from treated orchards.

# FRUITING VEGETABLES (Except Cucurbits)

Eggplant; Ground Cherry (*Physalis* spp.); Pepino; Peppers (including Bell Pepper, Chili Pepper, Cooking Pepper, Pimento, Sweet Pepper); Tomatillo; Tomato

FOLIAR APPLICATION			
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Colorado Potato Beetles Flea Beetles Leafhoppers Lygus/Plant Bugs Pepper Weevils Stinkbugs Whiteflies (suppression)	3 to 4 fl oz/A (0.05 to 0.067 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.  Choose lower rate for light infestation and the higher rate for heavy infestation. For whiteflies use the higher rate.	
		Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.	

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not incorporate an adjuvant with this product.
- Do not apply treatments less than 7 days apart.
- Do not apply within 21 days of harvest.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.

Fruiting Vegetables (Except Cucurbits) continued

SOIL APPLICATION				
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions		
Aphids Colorado Potato Beetles Flea Beetles Leafhoppers Leafminers (suppression) Lygus/Plant Bugs Thrips (suppression) Whiteflies (suppression)	9 to 12 fl oz/A (0.15 to 0.2 lb ai/A)	<ul> <li>Make one soil application at specified dose in sufficient carrier volume to insure uniform application in one of the following methods:</li> <li>1. In a narrow band centered on the plant row in the bedding operation just prior to planting.</li> <li>2. In-furrow spray at planting directed on or below seed/transplant.</li> <li>3. As a sidedress to both sides of the row.</li> <li>4. Seeding drench or as transplant water drench.</li> </ul>		
Diseases Suppressed	V-10170 2.13 SC Insecticide Application Rate	5. Chemigation into root zone through drip, trickle or similar custom made systems that target the watering of the root zone of		
Tomato Spotted Wilt Virus (TSWV)	12 fl oz/A (0.2 lb ai/A)	the plants.		

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Apply V-10170 2.13 SC Insecticide at planting.

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# **FOLIAR APPLICATION**

Pests	V-10170 2.13 SC Insecticide Application Rates	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population		
Leafhoppers Grape Leaf Skeletonizers Japanese Beetles Multicolored Asian Lady Beetle	2 to 4 fl oz/A (0.033 to 0.067 lb ai/A)			
Sharpshooters	4 to 6 fl oz/A (0.067 to 0.1 lb ai/A)	Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough		
European Grapevine Moth Grape Berry Moth Grape Mealybug Longtailed Mealybug Obscure Mealybug Vine Mealybug	6 fl oz/A (0.1 lb ai/A)	coverage is required for control		

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not apply treatments less than 14 days apart.
- May be applied up to harvest (0 days PHI).

# **GRAPE** continued

SOIL APPLICATION				
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions		
Grape Mealybug Grape Phylloxera spp. (suppression) Leafhoppers Longtailed Mealybug Obscure Mealybug Sharpshooters Vine Mealybug	6 to 12 fl oz/A (0.1 to 0.2 lb ai/A)	<ul> <li>Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Apply specified rate in sufficient carrier volume to ensure uniform application and incorporate into the soil using drip or trickle irrigation water.</li> <li>Make one soil application at specified dose in sufficient carrier volume to insure uniform application using the following method:         <ul> <li>Chemigation into root zone through drip, trickle or any similar custom made systems that target the watering of the root zone of the plants.</li> </ul> </li> </ul>		

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not apply treatments less than 14 days apart.
- Do not apply within 30 days of harvest.

# LEAFY VEGETABLES (Except Brassica Vegetables)

Amaranth (Chinese Spinach), Arugula (Roquette), Cardoon, Celery, Celtuce, Chervil, Chinese Celery, Chrysanthemum (Edible-leaved and Garland), Corn Salad, Cress (Garden and Upland), Dandelion, Dock (Sorrel), Endive (Escarole), Florence Fennel, Lettuce (Head and Leaf), Orach, Parsley, Purslane (Garden and Winter), Radicchio (Red Chicory), Rhubarb, Spinach, Spinach (New Zealand and Vine), Swiss Chard

FOLIAR APPLICATION			
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Flea Beetles Leafhoppers Whiteflies (suppression)	3 to 4 fl oz/A (0.05 to 0.067 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.  Choose lower rate for light infestation and the higher rate for heavy infestation.  Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.	

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not incorporate an adjuvant with this product.
- Do not apply treatments less than 7 days apart.
- Do not apply within 21 days of harvest.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.

Leafy Vegetables (Except Brassica Vegetables) continued

SOIL APPLICATION				
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions		
Aphids Flea Beetles Leafhoppers Leafminers (suppression) Thrips (suppression) Trash Bugs (including earwigs, crickets, ground beetles) Whiteflies (suppression)	9 to 12 fl oz/A (0.15 to 0.2 lb ai/A)	<ul> <li>Make one soil application at specified dose in sufficient carrier volume to ensure uniform application in one of the following methods:</li> <li>1. In a narrow band centered on the plant row in the bedding operation just prior to planting.</li> <li>2. In-furrow spray at planting directed on or below seed/transplant.</li> <li>3. As a sidedress to both sides of the row.</li> <li>4. Seeding drench or as transplant water drench.</li> <li>5. Chemigation into root zone through drip, trickle or similar custom made systems that target the watering of the root zone of the plants.</li> </ul>		

Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.

<sup>•</sup> Apply V-10170 2.13 SC Insecticide at planting.

PEACH			
F	OLIAR POST BLOOM	A APPLICATION	
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Leafhoppers	3 to 6 fl oz/A (0.05 to 0.1 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.	
Lygus/Plant Bugs Plum Curculio Scales Stinkbugs	6 fl oz/A (0.1 lb ai/A)	Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestations and/or larger trees.	
		Apply by ground 100 to 400 gallons per acre as a full coverage spray. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.	
		Scales: Time applications to the crawler stage, treat each successive generation. Two applications on a 10- to 14- day interval may be required to achieve control.	

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not incorporate an adjuvant with this product.
- Do not apply treatments less than 10 days apart.
- Do not apply within 21 days of harvest.
- Do not feed or allow livestock to graze on cover crops from treated orchards.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.



### **POME FRUIT**

Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental pear, Quince

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Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Aphids Leafhoppers Plant Bugs Stinkbugs	4 to 6 fl oz/A (0.067 to 0.1 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.
Apple Maggot Leafminers Mealybugs Plum Curculio	6 fl oz/A (0.1 lb ai/A)	The amount of <i>V-10170 2.13 SC</i> Insecticide per acre will depend on tree size and pest pressure. Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestation and/or larger trees.
Codling Moth* Lygus Oblique-banded Leafroller Oriental Fruit Moth Pear Psylla	6 to 12 fl oz/A (0.1 to 0.2 lb ai/A)	Apply by ground 100 to 400 gallons per acre as a full coverage spray. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.
Scales Stinkbugs		Applications may also be made as a concentrate spray. Maintain the same amount of product per acre as a dilute application using the appropriate amount of concentrate spray volume. Repeat applications as needed to maintain control but do not apply more often than every 10 days. A single application may result in suppression only.
		For optimum control of Leafminers and Leafrollers, make the first application as soon as pollination is complete and bees are removed from the orchard.
		*For Codling Moth (First Generation): For control of first generation codling moth in areas with light pressure and suppression of first generation codling moth in areas of heavy infestation.
		Suppression only of second or third generation codling moth in any area.
		Scales: Time applications to the crawler stage, treat each successive generation. Two applications on a 10-to 14-day interval may be required to achieve control.

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not apply within 7 days of harvest.
- Do not feed or allow livestock to graze on cover crops from treated orchards.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.

POMEGRANATE			
	FOLIAR POS	T BLOOM APPLICATION	
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Leafhoppers Mealybugs Whiteflies (suppression)	4 to 6 fl oz/A (0.067 to 0.1 lb ai/A)	Apply <i>V-10170 2.13 SC</i> Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.	
(03)		The amount of V-10170 2.13 SC Insecticide per acre will depend on tree size and pest pressure.	
		Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestations and/or larger trees.	
		Apply by ground 100 to 400 gallons per acre as a full coverage spray. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.	
		Repeat applications as needed to maintain control but do not apply more often than every 14 days. A single application may result in suppression only.	

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per season.
- Do not apply treatments less than 14 days apart.
- Do not apply within 7 days of harvest.

  Do not feed or allow livestock to graze on cover crops from treated orchards.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.

	SOYBEAN	
	FOLIAR APPLICA	ATION
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Aphids <sup>1</sup> Bean Leaf Beetles Blister Beetles Japanese Beetles Leafhoppers Lygus/Plant Bugs Stinkbugs Three Cornered Alfalfa Hopper Whiteflies (suppression)	3 to 6 fl oz/A (0.05 to 0.1 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.  Apply V-10170 2.13 SC Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. Use between 3 to 10 gallons per acre for aerial applications.

- Do not apply foliar treatments less than 7 days apart.
- Do not apply within 21 days of harvest.
- Do not make foliar applications of V-10170 2.13 SC Insecticide in fields treated with a neonicotinoid insecticide seed treatment(s) within 45 days after planting.
- Regardless of formulation or type of application (foliar or seed treatment), do not apply more than 0.2 lb ai of clothianidin per acre per season.
- Do not graze or feed soybean forage and hay to livestock.

Applications for soybean aphid need to be targeted at or less than 250 aphids/plant. Populations over threshold might require more than one application to achieve control.

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# **FOLIAR APPLICATION**

Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Aphids Flea Beetles Tobacco Budworm	3 to 4 fl oz/A (0.05 to 0.067 lb ai/A) 4 fl oz/A	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.
(suppression) Tobacco Hornworm (suppression)	pacco Hornworm	Make application using equipment that delivers a coarse droplet spray and low pressure to prevent off target drift. Check calibration periodically to ensure that your equipment is working properly. Thorough coverage is required for control.
		For suppression of budworms and hornworms, make the first application as soon as eggs hatch and repeat applications as necessary to maintain suppression.

- Do not apply more than 12 fl oz (0.2 lb ai) V-10170 2.13 SC Insecticide per acre per season.
- Do not apply treatments less than 7 days apart.
- Do not apply within 14 days of harvest.

[Editorial Note: Do not print this table on container label]

# SOIL APPLICATION (In Transplanted Water Application or Tray, or Flat Drench Application)

Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Flea Beetles	3 to 6 fl oz/A (0.05 to 0.1 lb ai/A)	V-10170 2.13 SC Insecticide must be mixed with water prior to application. Keep the V-10170 2.13 SC
Aphids Tobacco Budworm (suppression) Tobacco Hornworm (suppression)	6 fl oz./A (0.1 lb ai/A)	Insecticide solution agitated or mix regularly to prevent settling in the spray or transplant tank. Apply V-10170 2.13 SC Insecticide at the specified dosage to the soil in transplant water or by drench to trays or flats prior to transplanting. Water the plants in flats or trays by overhead irrigation to wash V-10170 2.13 SC Insecticide from foliage into the potting media. Failure to wash V-10170 2.13 SC Insecticide from foliage may result in a reduction of control.  Soil applications may sometimes cause yellowing on the leaves present at the time of transplanting. This effect does not have any impact on plant growth and yields.

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season
- Do not apply within 14 days of harvest.

# TREE NUTS

Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (Hazelnut), Hickory Nut, Macadamia Nut, Pecan, Walnut (Black and English)

# **FOLIAR POST BLOOM APPLICATION**

Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Aphids Leafhoppers Pecan Nut Casebearer Pecan Weevil Walnut Husk Fly Whiteflies (suppression)	3 to 6 fl oz/A (0.05 to 0.1 lb ai/A)	Apply V-10170 2.13 SC Insecticide when target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established.
Hickory Shuckworm Lygus Mealybugs Scales Stinkbugs	6 fl oz/A (0.1 lb ai/A)	Choose lower rate for light infestation and/or small trees and the higher rate for heavy infestation and/or larger trees.  Apply by ground 100 to 400 gallons per acre as a full coverage spray. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.
		Scales: Time applications to the crawler stage, treat each successive generation. Two applications on a 10- to 14-day interval may be required to achieve control.

- Do not apply more than 12 fl oz (0.2 lb ai) of V-10170 2.13 SC Insecticide per acre per season.
- Do not incorporate an adjuvant with this product on almond.
- Do not apply treatments less than 10 days apart.
- Do not apply within 21 days of harvest.
- V-10170 2.13 SC Insecticide must not be applied during bloom or if bees are actively foraging.
- Do not feed or allow livestock to graze on cover crops from treated orchards.

### TUBEROUS AND CORM VEGETABLES

Arrachcha, arrowroot, artichoke, (including Chinese and Jerusalem), edible canna, cassava (including bitter and sweet), root chayote, chufa, dasheen, ginger, leren, potato, sweet potato, tanier, turmeric, and yam

#### **FOLIAR APPLICATION**

Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions
Aphids	2 to 3 fl oz/A	Apply V-10170 2.13 SC Insecticide when
Colorado Potato Beetles <sup>1</sup> Flea Beetles Leafhoppers	(0.033 to 0.05 lb ai/A)	target pest(s) threshold populations are observed. Do not wait until population beyond threshold has been established. Thorough coverage is required for control. Use between 3 to 10 gallons per acre for aerial applications.

- Do not apply treatments less than 7 days apart.
- Do not apply within 14 days of harvest.
- Regardless of formulation or type of application (seed piece, soil or foliar), do not apply more than a total of 0.2 lbs active ingredient clothianidin per acre per season.

Do not apply by air except for potato.

V-10170 2.13 SC Insecticide will not control Colorado potato beetles in regions where insensitivity to neonicotinoid insecticides has been reported.

### TUBEROUS AND CORM VEGETABLES (continued)

IN-FURROW OR SIDE DRESS APPLICATIONS			
Pests	V-10170 2.13 SC Insecticide Application Rates	Special Instructions	
Aphids Colorado Potato Beetles¹ Exotic White Grub Flea Beetles Leafhoppers Potato Psyllids	9 to 12 fl oz/A (0.15 to 0.2 lb ai/A)	Timing of Application: At planting or as a side-dress on both sides of the row at ground-crack during hilling. With ground-crack/hilling application make certain product is covered with at least 3 inches of soil.	
(suppression) Sweet Potato Weevil Wireworms (suppression)  Diseases Suppressed	<i>V-10170 2.13 SC</i> Insecticide Application Rate	<ol> <li>Apply specified rate in sufficient carrier volume to insure uniform application and incorporate into the soil using one of the following methods: In a narrow band centered on the plant row in the bedding operation just prior to planting.</li> <li>In-furrow spray at planting. Direct spray</li> </ol>	
Symptoms of: Potato Leafroll Virus (PLRV) Purple Top	12 fl oz/A (0.2 lb ai/A)	in the furrow on the seed pieces or potatoes.  3. As a sidedress to both sides of the row or as a spray at ground crack directly over the row during hilling. Cover immediately with soil.	
		Chemigation from plant emergence to 50 percent row cover. Applications via chemigation targeting above ground pests after 50 percent row cover could result in limited plant uptake via the root system. Use at least 0.15 inches of water when chemigating <i>V-10170 2.13 SC</i> Insecticide.	

Regardless of formulation or type of application (seed piece, soil or foliar), do not apply more than a total of 0.2 lbs active ingredient clothianidin per acre per season.

<sup>&</sup>lt;sup>1</sup> V-10170 2.13 SC Insecticide will not control Colorado potato beetles in regions where insensitivity to neonicotinoid insecticides has been reported.

TUBEROUS AND CORM VEGETABLES (continued)

SEED-PIECE APPLICATION				
Pests	V-10170 2.13 SC Insecticide Rates/100 lbs seed	Special Instructions		
Aphids Colorado Potato Beetles Flea Beetles Leafhoppers Potato Leafhoppers Potato Psyllids (suppression only) Wireworms (seed-piece protection only)  Diseases Suppressed	V-10170 2.13 SC Insecticide Rates/100 lbs seed	Seed-Piece Application:  1. Apply specified dosage as a diluted, fine spray applied over the cut or whole seed tubers. A dilution rate of 1 part <i>V-10170</i> 2.13 SC Insecticide to 3 parts water, or less, is recommended.  2. Maintain agitation of spray mixture during the application process.  3. Use a spray system that is properly shielded to prevent any		
Symptoms of: Potato Leaf Roll virus (PLRV) Purple Top Net Necrosis	0.6 fl oz	Liquid-based fungicides can be applied with <i>V-10170 2.13</i> SC Insecticide; however check compatibility before use. If using inert dusts or dust-based fungicides, apply <i>V-10170 2.13</i> SC Insecticide first, followed by dust application.  Apply only in areas with adequate ventilation to accommodate drydown and in areas equipped to remove mist or dust.  Plant treated seed-pieces as soon as possible after treating.  *Based on seeding rate of 2,000 lbs/acre, seed-piece application rate range equals in-furrow/side-dress per acre application rate range.		

Do not use treated seed-pieces for food, feed or fodder.

 Do not apply any subsequent application of V-10170 2.13 SC Insecticide (in-furrow, sidedress) following a V-10170 2.13 SC Insecticide seed-piece treatment.

 Regardless of formulation or type of application (seed piece, soil or foliar), do not apply more than a total of 0.2 lbs active ingredient clothianidin per acre per season.

V-10170 2.13 SC Insecticide will not control Colorado Potato Beetles in regions where insensitivity to neonicotinoid insecticides has been reported.

# STORAGE AND DISPOSAL

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

#### **PESTICIDE STORAGE**

Store in a dry place away from excessive heat.

Do not store near food or feed.

Store in original container only.

To close package, replace and tighten cap to form an airtight seal.

#### PESTICIDE DISPOSAL

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

#### **CONTAINER HANDLING**

[Use the following statement for containers equal to or less than 5 gallons]
Nonrefillable container. Do not reuse or refill this container. Clean container 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 or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available; otherwise dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

[Use the following statement for containers greater than 5 gallons]
Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available; otherwise dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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Manufactured for: **Valent U.S.A. Corporation** P.O. Box 8025 Walnut Creek CA 94596 - 8025 (800) 682-5368 Made in U.S.A.

EPA Reg. No. 59639-150 EPA Est. No.

059639-00150.20100923.V10170 2.13SC.NOTIF

# [Sub Label 2]

V-10170 2.13 SC Insecticide

FOR USE ON LANDSCAPE ORNAMENTALS, NON-BEARING FRUIT AND NUTS (IN LANDSCAPES), SOD FARMS AND TURFGRASS



# GROUP 4A INSECTICIDE

# V-10170 2.13 SC INSECTICIDE

FOR SYSTEMIC CONTROL OF LISTED INSECTS ON ORNAMENTAL PLANTS GROWN IN FIELD NURSERY PLANTINGS, CONTAINER NURSERIES, FOREST NURSERIES, GREENHOUSES, LATH AND SHADE HOUSES, INTERIORSCAPES AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES, NON-BEARING FRUIT AND NUTS AND TURFGRASS

Active Ingredient	By Wt.
*Clothianidin	23.60%
Other Ingredients	<u>76.40</u> %
Total	

\*(E)-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine

Contains 2.13 pound active ingredient per gallon

# **KEEP OUT OF REACH OF CHILDREN**

# **CAUTION**

SEE NEXT PAGE FOR PRECAUTIONARY STATEMENTS

# **NET WEIGHT**

EPA Reg. No. 59639-150 EPA Est. No.



# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if swallowed.

## **FIRST AID**

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Call a poison control center or doctor immediately for treatment advice.

#### swallowed:

- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

# **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves made of any waterproof material.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. 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 cleaning equipment or disposing of equipment washwaters or rinsate.

This product is toxic to bees exposed to treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period.

# **AGRICULTURAL USE REQUIREMENTS**

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

Do not enter or allow entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that involves contact with anything that has been treated, such as plants, soil or water is: coveralls, shoes plus socks, chemical resistant gloves made of any waterproof material.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries or commercial greenhouses.

Keep children and pets off treated area until the sprays have dried.

# **DIRECTIONS FOR USE**

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

Do not apply this product in any 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.



### DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

#### **RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

#### LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

#### LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR 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 THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

#### PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

#### NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

#### TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

## **RESISTANCE MANAGEMENT**

V-10170 2.13 SC Insecticide contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by V-10170 2.13 SC Insecticide or other Group 4A insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of *V-10170 2.13 SC* Insecticide or other Group 4A insecticides that have a similar target site of action on the same insect species.
- Using tank mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive Integrated Pest Management (IPM) program.
- · Monitoring treated insect populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for insecticide resistance management or IPM recommendations for the specific site and resistant pest problems.

For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at 800-682-5368.

#### **USE INFORMATION**

*V-10170 2.13 SC* Insecticide is a broad spectrum insecticide, for control of a wide spectrum of insects infesting turfgrass, landscape ornamentals, interior plantscapes and non-bearing fruit (including apples and pears) and nut trees (in landscapes). When applied as directed, *V-10170 2.13 SC* Insecticide provides excellent and long residual insect control.

#### RESTRICTIONS

- Do not use a foliar application of clothianidin (*V-10170 2.13 SC* Insecticide) following a soil application of clothianidin.
- Regardless of formulation or type of application (soil or foliar), Do not apply more than a
  total of 0.2 lb active ingredient clothianidin per acre per season for all crops, except for
  Turf and Landscape Ornamental use, which is not to exceed 0.4 lb active ingredient.
- If the maximum season limit of clothianidin as mentioned above has been applied and
  pest populations require additional treatments, use another registered pesticide that is
  not in the neonicotinoid class of chemistry.
- Do not apply by air.

## **PLANT TOLERANCE**

Neither the manufacturer nor the seller has determined whether or not *V-10170 2.13 SC* Insecticide can be used safely on all cultivars of plants listed on the label. *V-10170 2.13 SC* Insecticide has been tested on many cultivars with no phytotoxicity observed at label rates. Since all plant species and their varieties and cultivars have not been tested for tolerance, it is recommended that a small number of plants be sprayed to make certain that no phytotoxicity occurs, prior to any large scale application to plants. The end user assumes all risks arising from application of *V-10170 2.13 SC* Insecticide in a manner inconsistent with its labeling.

*V-10170 2.13 SC* Insecticide can be tank mixed. However, all plant species and their varieties and cultivars have not been tested with possible tank mix combinations, sequential pesticide treatments and adjuvants and surfactants. Conduct a spray mix compatibility and phytotoxicity trial under local conditions to ensure compatibility prior to any large-scale use.

## **MIXING INSTRUCTIONS**

- 1. Begin with clean equipment.
- 2. Add sufficient clean water to the spray tank for 1/2 of the mix load.
- 3. Start tank agitation.
- 4. Add and properly suspend the necessary amount of *V-10170 2.13 SC* Insecticide before adding any other products. Agitate to ensure thorough mixing while adding the remaining required water. A high quality wetting agent or other spray adjuvant, approved for use on your crop, may be added to spray solutions according to the manufacturer's use instructions. Be sure to suspend and dilute *V-10170 2.13 SC* Insecticide properly prior to the addition of any adjuvant. Consult adjuvant label or manufacturer for crop tolerance and safety information when used with this product.
- 5. Maintain agitation during mixing and application.
- 6. Apply with properly calibrated spray equipment.

# **APPLICATION PROCEDURES**

## **Foliar Application**

Select spray nozzles which will provide accurate and uniform spray deposition. Use spray nozzles which provide medium sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State and County Extension Service.

Apply *V-10170 2.13 SC* Insecticide using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Do not make applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

# **Application Through Irrigation Systems (Chemigation)**

V-10170 2.13 SC Insecticide alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems. Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment. Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts. 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.

# **Using Water from Public Water Systems**

 Do not apply V-10170 2.13 SC Insecticide through any irrigation system physically connected to a public water system.

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 per year. *V-10170 2.13 SC* Insecticide may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

# Operating Instructions for All Specified Types of Irrigation Systems

- 1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts.
- 2. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. 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.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 6. 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.
- 7. 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.
- 8. Do not apply when wind speed favors drift beyond the area intended.

# **Calibration and Application Instructions**

Apply V-10170 2.13 SC Insecticide under the schedule specified in the specific crop use recommendations, not according to the irrigation schedule, unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 to 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment.

Check with State and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

# **Center Pivot Irrigation Equipment**

- 1. Use only drive systems that provide uniform water distribution.
- 2. Do not use end guns when chemigating *V-10170 2.13 SC* Insecticide through center pivot systems because of non-uniform application.
- 3. Plug the first nozzle closest to the well head to protect the water source.
- 4. Determine the size of the area to be treated.
- 5. Determine the time required to apply 0.1 to 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. Run the system at 80 to 95% of the manufacturer's rated maximum travel speed.
- 6. Using water, determine the injection pump output when operated at normal line pressure.
- 7. Determine the amount of *V-10170 2.13* SC Insecticide, and any tank mix partners, required to treat the area covered by the irrigation system.
- 8. Add the required amount of *V-10170 2.13 SC* Insecticide, and any tank mix partners, and sufficient water to meet the injection time requirements to the solution tanks. (See "Mixing Instructions" section of this label.)
- 9. Make sure the system is fully charged with water before starting injection of the *V-10170* 2.13 SC Insecticide solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- 10. Maintain constant agitation in the solution tank during the injection period.
- 11. Inject the specified amount of *V-10170 2.13 SC* Insecticide per acre continuously for one complete revolution of the system.
- 12. Stop the injection equipment after treatment is complete. Continue to operate the system until the *V-10170 2.13 SC* Insecticide solution has cleared all of the sprinkler heads.
- 13. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

# Solid Set, Hand Move and Moving Wheel Irrigation Equipment

- 1. Determine the acreage covered by the sprinklers.
- 2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 40 minute time interval.
- 3. Determine the amount of *V-10170 2.13 SC* Insecticide required to treat the area covered by the irrigation system.
- 4. Add the required amount of *V-10170 2.13 SC* Insecticide, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See "Mixing Instructions" section of this label.)
- 5. Operate the system at the same pressure and time interval established during the calibration.
- 6. Inject specified amount of *V-10170 2.13 SC* Insecticide per acre for either a 20 to 40 minute period at the end of a regular irrigation set, or as a 20 to 40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
- 7. Stop injection equipment after treatment is completed. Continue to operate the system until the *V-10170 2.13 SC* Insecticide solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

# **ORNAMENTALS**

V-10170 2.13 SC Insecticide is for use on ornamentals in commercial and residential landscapes and interior plantscapes. To assure optimum effectiveness, good spray coverage of the target plant is essential. Application can be made by foliar application or soil applications including soil injection, drenches and broadcast sprays. For optimum control, make applications prior to anticipated pest infestation.

Apply *V-10170 2.13 SC* Insecticide when threshold populations are observed. Do not wait until population beyond threshold has been established. Apply *V-10170 2.13 SC* Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. To achieve adequate coverage, use proper spray pressures, nozzles, nozzle spacing, and water volume per acre.

Apply at planting or after planting to established plants. On established plants, irrigate the treated area thoroughly but do not allow leaching and runout from containers for at least 10 days.

Do not apply more than a total of 24 fl oz of *V-10170 2.13 SC* Insecticide (0.4 lbs. active ingredient) per acre per season.

Choose lower rates for light infestations and/or smaller plants and higher rates for heavy infestations and/or larger plants.

## **RESTRICTIONS**

- Do not apply more than a total of 24 fl oz of V-10170 2.13 SC Insecticide (0.4 lb active ingredient clothianidin) per acre per season.
- Drench or broadcast applications will provide control of foliage feeding insects, however, control will not be achieved until the product has been taken up by the plant roots and translocated to the area where the insects are feeding.
- If making broadcast applications, water in with enough irrigation or rainfall to move the product into the zone where insects are active.
- For drench applications, use enough water to move the product into the zone where the insects are active.

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Plants	Pests	V-10170 2.13 SC Insecticide Application Rates (per 100 gals of water)	Special Instructions
Evergreens		404045	Uniformly apply the spray
Flowers Foliage Plants	Aphid	1.2 to 2.4 fl oz	solution to the point of drip. Reapply as needed.
<b>Ground Covers</b>	Mealybug	a?	
Interior Plantscapes Shrubs Trees (including non-bearing fruit and nut)	Whitefly	1.8 to 2.4 fl oz	The amount of spray solution needed per acre will depend or the ornamental size and the density of the leaf canopy.

 Do not exceed a total of 24 fl oz of V-10170 2.13 SC Insecticide (0.4 lbs active ingredient clothianidin) per acre per season

DRENCH APPLICATION* ON ORNAMENTALS				
PLANTS IN CONTAINERS	PESTS	V-10170 2.13 SC INSECTICIDE APPLICATION RATES	CONTAINER SIZE (INCHES)	NUMBER OF POTS
Herbaceous	Aphid	1.2 to 2.4 fl oz	2	6000
Species (one or			3	4000
two plants per pot)	Mealybug	1.8 to 2.4 fl oz	4	3000
	Whitefly		5	2400
			6	2000
			7.	1700
			8	1500
0.00			9	1350
,			10	1200
			11	1100
· · · · · · · · · · · · · · · · · · ·			12	1000
Herbaceous	Aphid	1.2 to 2.4 fl oz	2	4000
Species (three or			3	2680
more plants per	Mealybug	1.8 to 2.4 fl oz	4	2000
pot)	Whitefly		5	1600
			6	1320
Woody Perennials			7	1120
			8	1000
			9	880
			10	800
			11	720
	<u> </u>		12	640

<sup>\*</sup>Mix the specified amount of product with a sufficient volume of water to evenly disperse the solution into the pots and to thoroughly wet the planting medium, without resulting in overflow or leaching and the loss of product. When watering treated pots, do not water to the point of overflowing or leaching for 10 days after application.

DRENCH APPLICATION* PLANTS IN CONTAINERS	PESTS	V-10170 2.13 SC APPLICATION RATES
Ornamental plants grow in flats, benches or beds	Aphid	1.2 to 2.4 fl oz per 7500 sq ft
	Mealybug Whitefly	1.8 to 2.4 fl oz per 7500 sq ft

<sup>\*</sup>Mix the specified amount of product with a sufficient volume of water to evenly disperse the solution into the pots and to thoroughly wet the planting medium, without resulting in overflow or leaching and the loss of product. When watering treated pots, do not water to the point of overflowing or leaching for 10 days after application.

# NON-BEARING FRUIT AND NUT TREES (IN LANDSCAPES WHICH ARE NOT INTENDED FOR USE IN COMMERCIAL PRODUCTION)

Apply *V-10170 2.13 SC* Insecticide when threshold populations are observed. Do not wait until population beyond threshold has been established. Apply *V-10170 2.13 SC* Insecticide in sufficient water to ensure uniform and thorough coverage of foliage. Thorough coverage is required for control. To achieve optimum coverage, use proper spray pressures, nozzles, nozzle spacing and water volume per acre.

APPLICATION RATES ON NON-BEARING FRUIT AND NUT TREES (Post-Bloom Application)

PESTS	V-10170 2.13 SC INSECTICIDE APPLICATION RATES	SPECIAL INSTRUCTIONS
Aphid Apple Maggot Codling Moth Leafhopper Leafminers Oblique-Banded Leafroller Oriental Fruit Moth	5.6 to 12 fl oz/A 1.4 to 3.0 fl oz/100 gals	Non bearing fruit and nut trees in landscapes are only for ornamental use. Do not harvest fruit or nuts from treated trees within one year of application.  The amount of V-10170 2.13 SC Insecticide per acre will depend on tree size, pest pressure and the volume of foliage present. The rate of water carrier
Plum Curculio Spotted Tentiform Leafminer Western Tentiform Leafminer		per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.  Apply V-10170 2.13 SC Insecticide in a full coverage spray to the point of drip. The spray volume will depend on tree size and density of the canopy. Repeat applications as needed to maintain control but do not apply more often than every 10 days.
		For control of Codling Moth and Oriental Fruit Moth: Apply V-10170 2.13 SC Insecticide in a program of rotational sprays with other labeled insecticides. When using the 5.6 fl oz rate of V-10170 2.13 SC Insecticide to control the Codling Moth and/or Oriental Fruit Moth, do not apply treatments less than a 14 day interval.
- De not analy more than 1	2	For control of Leafminers and Leafrollers: Make the first application as soon as pollination is complete and bees are no longer present. Repeat application as necessary to maintain control. A single application may result in suppression only.

- Do not apply more than 12 oz of *V-10170 2.13 SC* Insecticide (0.2 lb ai) per acre per season.
- Do not apply treatments less than a 10 day interval.

# **TURFGRASS**

V-10170 2.13 SC Insecticide can be used as directed on grass grown in industrial, commercial and residential landscapes including, airports, athletic fields, cemeteries, commercial sod farms, golf courses, home lawns, parks and playgrounds.

*V-10170 2.13 SC* Insecticide has sufficient residual activity to provide high levels of control when applications are made proceeding or during the egg laying activity of the target pests. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Follow application with sufficient irrigation or rainfall to move the active ingredient through the thatch.

V-10170 2.13 SC Insecticide can be applied to turf at 12 to 24 fl oz per acre. The rate is dependent on the target pest(s), their stage of development and the desired level of control. Optimum results for grubs (larvae) will be achieved when applications are made just prior to or just after peak egg laying. Use higher rates when long residual control is desired or late season curative applications are made to turf already showing grub damage. Multiple applications can be made but do not exceed the maximum amount per year (24 fl oz per acre). Consult your local State Agricultural Experiment Station, State Extension Turf Specialists or other turf experts for specific information concerning the timing of application(s).

Apply V-10170 2.13 SC Insecticide in sufficient water to provide optimal distribution in the treated area. The use of properly calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

### RESTRICTION

 Do not mow turfgrass until after irrigation or rainfall has occurred so that uniformity of application will not be affected.

APPLICATION RATES ON TURFGRASS		
PESTS	V-10170 2.13 SC INSECTICIDE APPLICATION RATES	
Annual Bluegrass Weevil		
Billbugs		
Black Turfgrass Ataenius		
Chinch Bugs*		
Sod Webworms		
White Grubs		
Asiatic Garden Beetle	12 to 24 fl oz/A (0.2 to 0.4 lb ai/A)	
European Chafer		
Green June Beetle		
Japanese Beetle		
Northern Masked Chafer		
Oriental Beetle		
Southern Masked Chafer		
Cutworms (suppression)* Mole Crickets (suppression)*	24 fl oz/A (0.4 lb ai/A)	

acre per season.

\*Use the higher rate for control of these insects.

# STORAGE AND DISPOSAL

## PESTICIDE STORAGE

Store in a dry place away from excessive heat.

Do not store near food or feed.

Store in original container only.

To close package, replace and tighten cap to form an airtight seal.

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

## PESTICIDE DISPOSAL

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

## **CONTAINER HANDLING**

[Use the following statement for containers equal to or less than 5 gallons]

Nonrefillable container. Do not reuse or refill this container. Clean container 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 or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Offer for recycling, if available; otherwise dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

[Use the following statement for containers greater than 5 gallons]

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available; otherwise dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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Made in U.S.A.

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