EPA Reg.

83222-32

Term of Issuance: Unconditional

Name of Pesticide Product:

S-Cloprid 4 AG

Number:

Date of Issuance:



### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Chemical Safety and Pollution Prevention

Registration Division (H7505P)

1200 Pennsylvania Avenue NW

Washington, D.C. 20460

NOTICE OF PESTICIDE:

x Registration

\_\_ Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Ms. Jane M. Miller

J. Oliver Products, LLC

c/o Biologic, Inc. 115 Obtuse Hill Road

Brookfield, CT 06804

Gig Harbor, WA 98332

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA sec. 3(c)5. Once a pesticide is registered, however, it is not regarded as permanently acceptable. Registration does not eliminate the need for continual reassessment of pesticides. If the Agency determines that, at any time, additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under FIFRA section (3)(c)(2)(B).

1. Revise the EPA Registration Number to read, EPA Reg. No. "83222-32".

Signature of Approving Official:

Verns Eagle

Venus Eagle

Product Manager 01

Insecticide-Rodenticide Branch Registration Division (7504P) Date:

JUN 2 5 2010

EPA Form 8570-6

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- 2. Within eighteen months of the date of this registration, submit to the Agency the required one year storage stability study (830.6317) for the proposed product under warehouse conditions. The corrosion characteristics study (830.6320) may be carried out concurrently. It is recommended that observations be made at 0, 3, 6, 9, and 12 months.
- 3. Submit two copies of your final printed label before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitute acceptance of these conditions.

A stamped copy of the label is enclosed for your records. If you have any questions regarding this notice contact Dani Daniel at 703 305-5409 or electronically at daniel.dani@epa.gov.

# S-CLOPRID 4 AG

Flowable Insecticide

**ACTIVE INGREDIENT** % BY WT. OTHER INGREDIENTS: 59.3%

Contains 4 lbs. of active ingredient per gallon

# **KEEP OUT OF REACH OF CHILDREN** CALITION

	OACHON
FIRST AID	
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> </ul>
IF IN EYES:	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	ainer or label with you when calling a poison control center or doctor or going for treatment. You may 2-1222 for emergency medical treatment information.
Note to Physician: No	specific antidote is available. Treat the patient symptomatically.

# **PRECAUTIONARY STATEMENTS** HAZARDS TO HUMANS AND DOMESTIC ANIMALS **CAUTION**

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

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

### Applicators and other handlers must wear:

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

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

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

NET CONTENTS: GALLON(S)

EPA Reg. No. 83222-XX

JUN 25 2017

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

Manufactured By: J. Oliver Products, LLC 3187 Robertson Gin Road Hernando, MS 38632

EPA Est. No. XXXXX-XX-XXX

### **ENGINEERING CONTROLS STATEMENT**

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

# **USER SAFETY RECOMMENDATIONS**

### Users should:

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

# **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. This product is toxic to wildlife and highly toxic to aquatic invertebrates.

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

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

# SPRAY DRIFT MANAGEMENT

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

# Importance of Droplet Size

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

# **Wind Speed Restrictions**

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

# **Restrictions During Temperature Inversions**

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

### No-Spray Zone Requirements for Soil and Foliar Applications

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

# **Runoff Management**

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When using S-Cloprid 4 AG on erodible soils employ the best management practice for minimizing runoff. Consult your local Natural Resources Conservation Service for recommendations in your use area.

# **Endangered Species Notice**

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

### Resistance Management

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

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

The active ingredient in S-Cloprid 4 AG is a member of the neonicotinoid chemical class. Insect pests resistant to other chemical classes have not shown cross-resistance to S-Cloprid 4 AG. In order to maintain susceptibility to this class of chemistry in insect species with high resistance development potential, it is recommended that for each crop season: 1) only a single, soil application of S-Cloprid 4 AG be made; 2) foliar applications of products from the same class not be made following a long residual, soil application of S-Cloprid 4 AG, or other neonicotinoid products.

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

Do not use foliar applications of S-Cloprid 4 AG or other Group 4A products from the neonicotinoid chemical class on crops previously treated with a long-residual, soil-applied products from the neonicotinoid chemical class.

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

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

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

### **DIRECTIONS FOR USE**

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

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

# **AGRICULTURAL USE REQUIREMENTS**

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

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

# **APPLICATION INSTRUCTIONS**

S-Cloprid 4 AG is a flowable insecticide for the control and suppression of a variety of listed insect pests. S-Cloprid 4 AG may be applied as a soil treatment to cotton, tobacco, cucurbit vegetables, greenhouse vegetables, head, stem and brassica vegetables, leafy vegetables, legume vegetables, root and tuberous vegetables, strawberries, sugarbeets, bushberries, citrus, grapes, hops, pome fruit, stone fruit, tropical fruit, tree nuts, and other listed crops. S-Cloprid 4 AG may also be applied as a foliar treatment on cotton, soybeans, tobacco, leafy vegetables, fruiting vegetables, legume vegetables, root vegetables, tuberous and corm vegetables, strawberries, bushberries, bananas and plantains, pome fruits, citrus, grapes, stone fruits, tropical fruits, pomegranates, coffee, hops, Christmas trees, and tree nuts, and as a seed piece treatment for potatoes.

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

#### MIXING INSTRUCTIONS

To prepare the application mixture, add a portion of the required amount of water to the spray tank and with agitation, add S-Cloprid 4 AG. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. S-Cloprid 4 AG may also be used with other pesticides and/or fertilizer solutions. Please see "Compatibility" section of this label. When tank mixtures of S-Cloprid 4 AG and other pesticides are involved, prepare the tank mixture as recommended above and follow suggested "Mixing Order" below.

### Mixing Order

When pesticide mixtures are needed, add wettable powders or wettable granules first, S-Cloprid 4 AG and other suspension concentrate (flowable) products second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add an additional component until the previous is thoroughly mixed. If a fertilizer solution is added, a fertilizer/pesticide compatibility agent may be needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

# Compatibility

Test compatibility of the intended mixture before adding S-Cloprid 4 AG to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Do not use if product does not mix well or forms precipitates that do not readily disperse.

# **CHEMIGATION**

**Types of Irrigation Systems:** Chemigation applications of S-Cloprid 4 AG may be made to crops through chemigation systems if specified in crop-specific application sections. Applications of S-Cloprid 4 AG may only be made to crops through low-pressure systems. Do not apply S-Cloprid 4 AG through any other type of irrigation system.

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

Chemigation Monitoring: A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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

Required System Safety Devices: The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

### **ROTATIONAL CROPS\***

Treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval is required.

### **IMMEDIATE PLANT-BACK:**

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

### **30-DAY PLANT-BACK:**

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

### 10-MONTH PLANT-BACK

Onion and bulb vegetables

# 12-MONTH PLANT-BACK:

All Other Crops

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

# **FOLIAR APPLICATION**

Apply **S-Cloprid 4 AG** with properly calibrated ground or aerial application equipment. Minimum recommended spray volumes are 10 gallons per acre by ground application and 5 gallons per acre through aerial equipment. As pest pressure develops, apply the appropriate rate as a broadcast or directed spray to the target pest. For best control, ensure thorough coverage of entire plant. Retreat if needed.

Use lower rates early in the season when pest pressure is low or when tank-mixing with other insect control products. The level of control or suppression is determined by the stage of pest development and infestation level at the time of application. S-Cloprid 4 AG is most effective against insects in the early instar and early nymphal stages, as well as bollworm/budworm eggs. If coverage is not thorough, activity and control will be diminished. To ensure faster activity and optimum overall control, apply at the higher gallonage. To enhance coverage, use an organosilicone-based spray additive.

Regardless of formulation or method of application, apply not more than 0.5 lb. of active ingredient per acre per season, including seed treatment, soil and foliar uses.

# **FIELD CROPS**

# COTTON

Pests Controlled	Rate: Fluid ounces per acre
Cotton aphid, Cotton fleahopper, Bandedwinged whitefly, Plant bugs (excludes Lygus hesperus), Green Stink bug, Southern green stink bug, Bollworm/Budworm (ovicidal effect)	0.9 – 1.8
Pests Suppressed	
Lygus bug ((Lygus hesperus), Whiteflies (other than bandedwinged whitefly)	1.35 – 1.8

### Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 8.9 fluid ounces S-Cloprid 4 AG per acre or 0.31 lb ai/A of any imidacloprid product.

Do not graze treated fields after application of S-Cloprid 4 AG

Tank Mix Instructions		
Pests Controlled (In Addition to Pests Listed Above)	S-Cloprid 4 AG Rate fluid ounces per acre	Bidrin® 8 Rate fluid ounces per acre
Early Season Control: Thrips	0.9 – 1.35	1.6 – 3.2
Mid to Late Season Control: Plant bugs, Stink bugs (including Brown stink bug), Grasshoppers, Saltmarsh caterpillar, Cotton leafperforator	0.9 – 1.35	4.0 – 8.0

# Restrictions:

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

### **POTATO**

TOTATO	
Pests Controlled	Rate: Fluid ounces per acre
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Potato Psyllid	1.52

#### Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 6.4 fluid ounces S-Cloprid 4 AG per acre or 0.2 lb ai/A of any
  imidacloprid product.

**Applications:** Apply as a broadcast or directed foliar spray to an infested areas as insect population begins to build. Thorough coverage is necessary for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

### **TOBACCO**

Rate: Fluid ounces per acre	
3 to 1.6	

#### Restrictions:

- · Pre-Harvest Interval (PHI): 14 days
- · Minimum Interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 8.9 fluid ounces S-Cloprid 4 AG per acre or 0.28 lb ai/A of any imidacloprid product.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

### FRUITING VEGETABLES

Crops of Group 8 including: Eggplant, Ground cherry, Okra, Pepper (bell, chili, cooking, pimento, and sweet) Tomatoes, Pepinos. Tomatillos plus Okra

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.5 to 2.4
Pepper weevil	2.4

### Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- · Maximum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 7.6 fluid ounces S-Cloprid 4 AG per acre or 0.24 lb ai/A of any imidacloprid product.
- Do not use on crops grown for seed.

**Applications:** Apply as a broadcast or directed foliar spray to an infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

Use the higher rates for adult whitefly.

For Pepper weevil, apply only with ground equipment before a damaging insect population becomes established. Use S-Cloprid 4 AG in a full-season program that includes use of different classes of chemistry and modes of action in a blocked or windowed approach. Consult an extension specialist or crop advisor for further detail.

NOTES: Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

#### **LEAFY VEGETABLES**

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

production only do not apply to native watercress in streams of other bodies of water)		
Pests Controlled	Rate: Fluid ounces per acre	
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.5	

## Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- · Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 7.6 fluid ounces S-Cloprid 4 AG per acre or 0.24 lb ai/A of any
  imidacloprid product.
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

Use the higher rates for adult whitefly.

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

NOTES: Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

### **GLOBE ARTICHOKES**

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Leafhoppers	1.6 to 4.0

### Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 14 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG per acre or 0.5 lb ai/A of any imidacloprid product.
- · Do not use on crops grown for seed.

**Applications:** Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

### **HERBS**

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

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4

### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- · Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 4.2 fluid ounces S-Cloprid 4 AG per acre or 0.13 lb ai/A of any
  imidacloprid product.
- Do not use on crops grown for seed.

**Applications:** Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of an organosilicone spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

Notes: Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

Not all crops and/or varieties listed above have been tested for phytotoxicity. It is strongly recommended that only small numbers of plants be treated and evaluated before broad-scale application.

# **BRASSICA (COLE) LEAFY VEGETABLES**

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Flea Beetles, Leafhoppers, Whiteflies	1.5

# **Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 7.68 fluid ounces S-Cloprid 4 AG per acre or 0.24 lb ai/A of any
  imidacloprid product.
- · Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

**Notes:** Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

# **LEGUME VEGETABLES (See separate instructions for soybeans)**

Crops of Crops Group 6 including: Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Peas and Beans; (Lupinus spp., including grain lupin, sweet lupin, white lupin, and sweet white lupin); Phaseolus spp., including field beans, kidney beans, lima beans, navy beans, pinto beans, runner beans, snap beans, tepary beans, wax beans; (Vigna spp., including adzuki beans, asparagus beans, black-eyed peas, catjang, Chinese longbeans, cowpeas, Crowder peas, moth beans, mungbeans, rice beans, Southern peas, urd beans, and yardlong beans; Peas (Pisum spp.), including dwarf peas, edible-pod peas, English peas, field peas, garden peas, snow peas, sugar snap peas; Broad beans (fava), Chickpeas (garbanzo beans), Guar; Jackbean; Lablab beans (hyacinth), Lentils, Pigeon peas, Soybean (immature seed), Sword beans.

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Thrips, Whiteflies	1.4
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#### Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 4.2 fluid ounces S-Cloprid 4 AG per acre or 0.13 lb ai/A of any
  imidacloprid product.
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

Notes: Crop groupings established by US EPA are subject to change. Refer to the EPA website (<a href="www.epa.gov/pesticides">www.epa.gov/pesticides</a>) for current information.

# **ROOT VEGETABLES**

Crops of Subgroup 1B except Sugarbeet including: Garden Beets, Edible Burdock, Carrots, Celeriac, Chervil (turnip-rooted), Chicory, Gingseng, Horseradish, Parsley (turnip-rooted), Parsnip, Oriental radish (diakon), Rutabaga, Salsify (oyster plant), Black Salsify, Spanish Salsify, Skirret, and Turnip

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4

### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- · Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: On radish 1.4 fluid ounces S-Cloprid 4 AG per acre or 0.044 lb ai/A of any imidacloprid product; on other crops, 4.2 fluid ounces or 0.13 lb ai of any imidacloprid product per acre.
- Maximum number of applications of this or other imidacloprid product per season is 1 for radish, 3 for other crops.
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

**Notes:** Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

Tops or greens may be utilized for food or feed.

### **TUBEROUS and CORM VEGETABLES**

Crops of Subgroup 1C including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Sweet potato, Tanier, Yam bean (iaicama, manioc pea). True Yams

bean (Jaicama, marilee pea), True Tame	
Pests Controlled	Rate: Fluid ounces per acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4

### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 4.2 fluid ounces S-Cloprid 4 AG per acre or 0.13 lb ai/A of any imidacloprid product.
- Maximum number of applications of this or other imidacloprid product per season is 3.
- · Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

Notes: Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

Tops or greens may be utilized for food or feed.

#### **STRAWBERRIES**

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Spittlebugs, Whiteflies	1.5

#### **Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- · Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 4.5 fluid ounces S-Cloprid 4 AG per acre or 0.14 lb ai/A of any imidacloprid product.
- Do not apply during bloom or within 10 days prior to bloom, or when bees are actively foraging.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

**Notes:** Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

### SOYBEAN

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

# **Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per season: 4.05 fluid ounces S-Cloprid 4 AG per acre or 0.14 lb ai/A of any imidacloprid product.

# **BANANAS AND PLANTAINS**

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Leafhoppers, Thrips	3.2

### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 0 days
- · Minimum interval between applications: 14 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG per acre or 0.5 lb ai/A of any
  imidacloprid product.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of an organosilicone spray adjuvant as directed on the adjuvant label may improve coverage. Do not exceed 2.0 fl. oz. of adjuvant per 100 gallons of spray dilution. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

#### **BUSHBERRY**

Crops of Subgroup 13B Including: Blueberries, Currants, Elderberries, Gooseberries, Huckleberries, Juneberries,

Lingonberries, Salal

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Sharpshooters	1.2 to 1.6
Blueberry, Maggots, Japanese beetle: (adults), Thrips	2.4 to 3.2
(foliage feeding only)	

### Restrictions:

- Pre-Harvest Interval (PHI): 3 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG per acre or 0.5 lb ai/A of any imidacloprid product.
- Maximum number of foliar applications per year is 5.
- Minimum application volume: 20 gallons per acre by ground, 5 gallons per acre by air.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

**Notes:** Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

# **CITRUS**

**Crops of Group 10 Including**: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin, Tangerine, Pummelo, Orange (sweet and sour), Satsuma mandarin, Tangelo, White sapote (*Casimiroa* spp.), and other cultivars of these.

Pests Controlled	Rate: Fluid ounces per acre	
Aphids, Asian citrus psyllid, Blackfly, Citrus leafminer, Leafhoppers/Sharpshooters, Mealybugs, Scales, Whiteflies	4.0 to 8.0	
Pests Suppressed		
Thrips (foliage feeding only)	4.0 to 8.0	

# Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG per acre or 0.5 lb ai/A of any imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

**Notes:** Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

# COFFEE

Pests Controlled	Rate: Fluid ounces per acre	
Aphids, Leafhoppers, Leafminer	3.2	
Pests Suppressed		
Scales	3.2	

### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG per acre or 0.5 lb ai/A of any
  imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

**Applications:** Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

### **GRAPES**

Including: American bunch grapes, muscadine and vinifera varieties

Pests Controlled	Rate: Fluid ounces per acre
Leafhoppers/sharpshooters, Mealybugs	1.2 to 1.6
Grapeleaf Skeletonizer	1.5 to 1.6

### Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 14 days
- Maximum foliar-applied product allowed per crop season: 3.2 fluid ounces S-Cloprid 4 AG per acre or 0.1 lb ai/A of any
  imidacloprid product.
- · Ground application only.

Applications: Rates are based on mature vines. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

### **POME FRUITS**

Crops of Group 11 including: Apples, Crabapples, Loquat, Mayhaw, Pears (including Oriental pears), Quince

Pests Controlled	Rate: Fluid ounces per acre
Leafhoppers	1.6 to 3.2
Aphids (except wooly apple aphid), apple maggot, Leafminers, San Jose Scale	3.2
Pears only - Mealybugs, Pear psylla	8

# **Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG per acre or 0.5 lb ai/A of any
  imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Rates are based on mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. For use in control of apple maggot, J. Oliver Products, LLC recommends the use of a labeled sticker. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

**Notes:** Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

# **HOPS**

Pest Controlled	Rate: Fluid ounces per acre
Aphids	3.2

### Restrictions:

- Pre-Harvest Interval (PHI): 28 days
- Minimum interval between applications: 21 days
- Maximum foliar-applied product allowed per crop season: 9.6 fluid ounces S-Cloprid 4 AG or 0.3 lb ai/A of any imidacloprid product.

**Applications:** Rates are based on mature vines. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

## **POMEGRANATE**

FOWEGRAVATE	
Rate: Fluid ounces per acre	
1.6 to 3.2	
2.4 to 3.2	
3.2	
	1.6 to 3.2 2.4 to 3.2

### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- · Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 9.6 fluid ounces S-Cloprid 4 AG or 0.3 lb ai/Acre of any imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

#### STONE FRUIT

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

Pests Controlled	Rate: Fluid ounces per acre	
Aphids, Green June Beetle, Japanese Beetle, Leafhopper/Sharpshooter, Plant Bugs, Rose Chafer, San Jose Scale	1.6 to 3.2	
Cherry Fruit Fly	2.4 to 3.2	
Pests Suppressed		
Plum Curculio, Stink Bugs	3.2	

#### Restrictions:

# Apricots, nectarines, peaches

- Pre-Harvest Interval (PHI): 0 days
- · Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 9.6 fluid ounces S-Cloprid 4 AG or 0.3 lb ai/A of any imidacloprid product.
- Minimum water volume 50 gallons per acre by ground, 25 gallons per acre by air.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

# Cherries, plums, plumcots, prunes

- Pre-Harvest Interval (PHI): 7 days
- · Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.
- Minimum water volume 50 gallons per acre by ground, 25 gallons per acre by air.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Apply in a water volume of at least 50 gallons per acre by ground or 25 gallons per acre by air. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

Notes: Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

# TREE NUTS

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids (except Black pecan aphid), Leafhoppers/Sharpshooters,	
Phylloxera spp. (leaf infestations), Spittlebugs, Whiteflies	1.4 to 2.8
Black pecan aphid, Mealybugs, San Jose scale	3.2

# Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 6 days
- Maximum foliar-applied product allowed per crop season: 11.5 fluid ounces S-Cloprid 4 AG or 0.36 lb ai/A of any imidacloprid product.
- Minimum water volume 50 gallons per acre by ground, 25 gallons per acre by air.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Apply in a water volume of at least 50 gallons per acre by ground or 25 gallons per acre by air. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application at a 10 to 14 day interval may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

# **TROPICAL FRUIT**

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

(1) Not for use in California

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers/Sharpshooters, Mealybugs, Thrips	3.2
(foliage feeding only), Whiteflies,	
Pests Suppressed	
Scales	3.2
Dank taking a	

### **Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- · Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

**Notes:** Crop groupings established by US EPA are subject to change. Refer to the EPA website (<u>www.epa.gov/pesticides</u>) for current information.

# **CHRISTMAS TREES**

Pest Controlled	Rate: Fluid ounces per acre
Aphids, Adelgids, Sawflies	1.6 to 3.2

### Restrictions:

- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

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

POPLAR (Populus) SPECIES GROWN FOR TIMBER (including cottonwood)

Pest Controlled	Rate: Fluid ounces per acre
Aphids, Leaf Beetles	1.6 to 3.2

# Restrictions:

- Not for use in California
- Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. S-Cloprid 4 AG alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with other insecticides labeled for this use may improve knockdown and control of additional insects.

# **SOIL APPLICATION**

For soil applications of S-Cloprid 4 AG, direct product into the seed or root-zone of crop. Failure to place S-Cloprid 4 AG into root-zone may result in loss of control or delay in onset of activity. S-Cloprid 4 AG may be applied with ground or chemigation application equipment.

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

Optimum activity of S-Cloprid 4 AG results from application to the root-zone of plants to be protected. The earlier S-Cloprid 4 AG is available to a developing plant, the earlier the protection begins. S-Cloprid 4 AG is continuously taken into the roots over a long period of time and the systemic nature of S-Cloprid 4 AG allows movement from roots though the xylem tissue to all vegetative parts of the plant. This results in extended residual activity of S-Cloprid 4 AG, the control of insects, and the prevention and/or reduction of insects that may carry viruses. The rate of S-Cloprid 4 AG applied affects the length of the plant protection period. Use higher rates when infestations occur later in crop development or where pest pressure is continuous. S-Cloprid 4 AG will generally not control insects infesting flowers, blooms, or fruit. Additional crop protection may be required for insects feeding in, or on these plant parts, and for insects not listed in the crop-specific, pests-controlled sections of this label. Additional, specific S-Cloprid 4 AG application instructions are also provided in the crop-specific sections of this label.

Suppression, or less than complete control of certain diseases and insect pests including reduced feeding may also result from a S-Cloprid 4 AG application. Refer to the following crop use tables for specific pests controlled or suppressed. Control of these pests/diseases may require supplemental control measures.

### **Restrictions:**

- Do not use S-Cloprid 4 AG on crops grown for production of true seed intended for private or commercial planting unless allowed under state specific, supplemental labeling.
- Minimize exposure of S-Cloprid 4 AG to honey bees and other pollinators. Consult Cooperative Extension Service, PCAs, consultants, or local J. Oliver Products, LLC representatives for application on these types of crops.
- Do not apply more than 0.5 lb. active ingredient per acre per crop season regardless of formulation or method of application.

# FIELD CROPS

### COTTON

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

# Restrictions:

- Maximum soil-applied product allowed per crop season: 10.55 fluid ounces S-Cloprid 4 AG or 0.33 lb ai/A of any imidacloprid product.
- Maximum number of S-Cloprid 4 AG applications per year: 6
- Do not graze treated fields after any application of S-Cloprid 4 AG. See Resistance Management Section of this label.

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

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

#### PEANUT

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

### Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any imidacloprid product.

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

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

# Important Note

Increases in Tomato spotted wilt virus (TSWV) incidence have been observed with application of imidacloprid flowable products on multiple varieties of peanut. This may also be the case with other tospovirus, or other viruses transmitted by various thrips species or perhaps, other pests. Prior to application of **S-Cloprid 4 AG** to peanuts, consult with the State Cooperative Extension Service representative for recommendations. Growers are advised to weigh insect control benefits against potential increase in viral disease levels. In areas where TSWV or tospovirus are epidemic, growers are encouraged to use virus resistant varieties and consult the University of Georgia Tomato spotted wilt virus index before applying S-Cloprid 4 AG.

### **POTATO**

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

## Restrictions:

 Maximum soil-applied product allowed per crop season: 10.0 fluid ounces S-Cloprid 4 AG or 0.31 lb ai/A of any imidacloprid product.

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

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

#### **TOBACCO**

Pests Controlled	Rate: Fluid ounces per 1000 plants (as seedling tray drench)	Rate: Fluid ounces per 1000 plants (in-furrow or transplant-water)
Aphids, Flea beetles	0.5	0.7
Mole crickets, Whiteflies, Wireworms	0.7-1.4	0.9-1.4
Pests/Disease Suppressed		
Cutworms Symptoms of: Tomato spotted wilt virus (TSWV)	0.7-1.4	0.9-1.4

# Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum soil-applied product allowed per crop season: 16.0 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.

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

- Uniform, broadcast foliar spray to seedlings in trays (tray drench) not more than 7 days prior to transplanting followed immediately by overhead irrigation to wash S-Cloprid 4 AG from foliage into potting media. Failure to wash S-Cloprid 4 AG from foliage may result in a reduction in pest control. Handle transplants carefully during setting to avoid dislodging treated potting media from roots.
- In-furrow spray or transplant-water drench during setting.
- · Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

**Important Note:** Proper tray drench applications of S-Cloprid 4 AG have been shown to be the most efficacious method of application. However, the specified rate of S-Cloprid 4 AG may be applied as combination of the tray drench in the planthouse and/or transplant-water drench in field. Adverse growing conditions may cause a delay in uptake of S-Cloprid 4 AG into the plant and a delay in control.

# **VEGETABLE AND SMALL FRUIT CROPS**

### **CUCURBIT VEGETABLES**

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

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

#### **Restrictions:**

- Pre-Harvest Interval (PHI): 21days
- Maximum soil-applied product allowed per application: 12.0 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any imidacloprid product.

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

- Chemigation into root-zone through low- pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray directed on or below seed.
- Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation within 24 hours of application.
- · Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting.
- Post-seeding drench, transplant-water drench, or hill drench.
- Subsurface side-dress on both sides of each row. S-Cloprid 4 AG must be incorporated into root-zone.

Planthouse Application Instructions (Not for use in Califor	nia)	
Pest Controlled	Rate: Fluid ounces per 1000 plants	
Aphids, Whiteflies	0.05	

# Restrictions:

- Maximum amount S-Cloprid 4 AG applied in the planthouse: 0.05 fluid ounces S-Cloprid 4 AG or 0.00156 lb ai/ 1000 plants
- Maximum number S-Cloprid 4 AG applications in planthouse: 1
- · Not for use on crops grown for seed.

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

- Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash S-Cloprid 4
  AG from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash S-Cloprid 4 AG from foliage may result in reduced pest control.
- Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

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

**Important Note:** Not all varieties of cucurbit vegetables have been tested for tolerance to S-Cloprid 4 AG applied to seedling flats. To check tolerance, treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

### **FRUITING VEGETABLES**

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

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

### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum S-Cloprid 4 AG allowed on pepper and okra crops per application: 16.0 fluid ounces S-Cloprid 4 AG per acre or 0.5 lb ai/Acre.
- Maximum S-Cloprid 4 AG allowed on other fruiting vegetable crops per application: 12.0 fluid ounces S-Cloprid 4 AG per acre or 0.38 lb ai/Acre.

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

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray directed on or below seed.
- Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation within 24 hours of application.
- Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting.
- Post-seeding drench, transplant-water drench, or hill drench.
- Subsurface side-dress on both sides of each row. S-Cloprid 4 AG must be incorporated into root-zone.

Planthouse Application Instructions (N	ot for use in California)
Pests Controlled	Rate: Fluid ounces per 1000 plants
Aphids, Whiteflies	0.05
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### **Restrictions:**

- Maximum amount S-Cloprid 4 AG applied in the planthouse: 0.05 fluid ounces S-Cloprid 4 AG or 0.00156 lb ai/ 1000 plants
- Maximum number S-Cloprid 4 AG applications in planthouse: 1
- Not for use on crops grown for seed.

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

- Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash S-Cloprid 4
  AG from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash SCloprid 4 AG from foliage may result in reduced pest control.
- Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.
- The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Handle transplants carefully during setting to avoid dislodging treated potting media from roots.

Important Note: Not all varieties of fruiting vegetables have been tested for tolerance to S-Cloprid 4 AG applied to seedling flats. To check for tolerance, treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

#### **GREENHOUSE VEGETABLES**

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

(Water blanks in production groom odeco): Cacamber, Terrate, Crity		
Pests Controlled	Rate: Fluid ounces per 1000 plants	
Aphids, whiteflies	0.7	

#### Restrictions:

- Pre-Harvest Interval (PHI): 0 day
- Maximum number S-Cloprid 4 AG applications per crop season: 1
- Maximum allowable rate per year: 0.7 fl. oz. (0.03 lb ai)
- Not for crops grown for seed.

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

Apply when infestation pressure surpasses threshold and beneficials are not able to maintain insect populations below damage thresholds. Repellency of bumble bee pollinators and negative effects on some beneficials (*Orius* spp.) can occur when S-Cloprid 4 AG is applied.

Many varieties of vegetables have been tested for tolerance to S-Cloprid 4 AG and show good safety. However, certain varieties may show more sensitivity to S-Cloprid 4 AG. Therefore, treatment of a few plants is recommended before treating the whole greenhouse.

### **GLOBE ARTICHOKE**

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

#### **Restrictions:**

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.

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

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

# **HERBS** (Not for use in California)

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

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

### **Restrictions:**

- Not for use in California
- Pre-Harvest Interval (PHI): 14 days
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any imidacloprid product.

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

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

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

# **HEAD and STEM BRASSICA VEGETABLES**

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

Pests Controlled Rate: Fluid ounces per acre (on 36 inch rows)			
Aphids, Leafhoppers, Thrips (foliage feeding thrips only),	4.4 - 10.5		
Whiteflies			

#### **Restrictions:**

- Pre-Harvest Interval (PHI): 21 days
- Maximum S-Cloprid 4 AG allowed per application: 10.5 fl. oz.(0.38 lb Al/Acre)
- Not for use on crops grown for seed.

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

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

#### **LEAFY VEGETABLES**

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

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

#### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum S-Cloprid 4 AG allowed per application: 12.0 fl. oz.(0.38 lb Al/Acre)
- Not for use on crops grown for seed.

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

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

# **LEAFY PETIOLE VEGETABLES**

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

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

# Restrictions:

- Pre-Harvest Interval (PHI): 45 days
- Maximum S-Cloprid 4 AG allowed per application: 12.0 fluid ounces/Acre (0.38 lb Al/Acre)
- Not for use on crops grown for seed.

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

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

# LEGUME VEGETABLES except soybean, dry-soil treatment

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

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

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

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

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

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

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

### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any imidacloprid product.
- Not for use on crops grown for seed.

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

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

# **ROOT VEGETABLES**

Crops of Subgroup 1B except Sugarbeet plus Kava including: Beet (garden) <sup>1</sup>, Burdock (edible) <sup>1</sup>, Carrot <sup>1</sup>, Celeriac <sup>1</sup>, Chervil (turnip-rooted) <sup>1</sup>, Chicory <sup>1</sup>, Gingseng, Horseradish, Kava <sup>1</sup> (not for use in California), Parsley (turnip-rooted), Parsnip <sup>1</sup>, Radish <sup>1</sup>, Oriental radish (diakon) <sup>1</sup>, Rutabaga <sup>1</sup>, Salsify (oyster plant), Salsify (black) <sup>1</sup>, Salsify (Spanish), Skirret, and Turnip <sup>1</sup>

Tradistry, Otherical radiest (diation), Tratabaga, Galeiry (Oyster plant), Galeiry (Diack), Galeiry (Opanistr), Oktrict, and Turnip				
Pests Controlled	Rate: Fluid ounces per 1000 row-feet	Rate: Fluid ounces per acre		
Aphids, Flea beetles, Leafhoppers, Thrips (foliage feeding thrips only),	0.3585	5.0-12.0 (depending on row spacing)		
Whiteflies				

### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any imidacloprid product.
- Maximum S-Cloprid 4 AG applications per crop season: 1
- Not for use on crops grown for seed.

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

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

Important Note: The rate applied affects the length of control. Use higher rates where infestations occur later in crop development, or where pest pressure is continuous. S-Cloprid 4 AG rates less than 0.7 fluid ounces/1000 row-feet will not provide adequate residual pest control. S-Cloprid 4 AG treated crops grown on very high organic matter soils (muck) may also require additional pest management control.

<sup>1</sup>Tops or greens from these crops may be utilized for food or feed.

### **TUBEROUS and CORM VEGETABLES**

Crops of Subgroup 1C including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter and sweet)<sup>2</sup>, Chayote (root), Chufa, Dasheen (taro)<sup>1</sup>, Ginger, Leren, Sweet potato, Tanier (cocovam)<sup>1</sup>, Turmeric, Yam bean (licama, manioc pea), Yam (true)<sup>2</sup> (For instructions on potato see Field Crops section)

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

#### **Restrictions:**

- Pre-Harvest Interval (PHI) from planting application: 3 days (leaves); 125 days (corms)
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any imidacloprid product.
- Maximum S-Cloprid 4 AG applications per crop season: 1
- Not for use on crops grown for seed.

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

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

**Important Note:** The rate applied affects the length of control. Use higher rates where infestations occur late in crop development, or where pest pressure is continuous. S-Cloprid 4 AG rates less than 0.35 fluid ounces/1000 row-feet may not provide adequate residual pest control. S-Cloprid 4 AG treated crops grown on very high organic matter soils (muck) may also require additional pest management control.

<sup>1</sup>Tops or greens from these crops may be utilized for food or feed.

# STRAWBERRY1

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

### Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any
  imidacloprid product.

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

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment after plants are established or on perennial crops in early spring prior to bud opening.
- As a plant material or plant hole treatment just prior to, or during transplanting.
- As a band spray over-the-row in a minimum of 20 gallons of water per acre, followed immediately by overhead irrigation
  to incorporate product into root-zone. Do not use plastic or other mulches that limit movement of S-Cloprid 4 AG into
  root zone.

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

# Post-harvest Use on Perennial Crops

Pests Controlled	Rate fluid ounces per acre	
White grub complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle, Oriental beetle)	8.0-12.0	

### Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any
  imidacloprid product.

**Applications:** Apply a single application post harvest to coincide with renovation of strawberry fields and during active egglaying period of beetles. Apply specified dosage of S-Cloprid 4 AG in one of the following methods:

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

Important Note: All soil-surface applications must be followed by 0.25 inches of rainfall or overhead irrigation water per acre within 2 hours of application. Failure to adequately incorporate S-Cloprid 4 AG into egg-deposition zone may result in decreased activity.

<sup>1</sup> Use only one of the methods (under "Annual and Perennial Crops" OR "Post-Harvest Use on Perennial Crops"). Do not use both application methods in the same season.

### SUGARBEET

For use only in CA

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

#### Restrictions:

- Maximum soil-applied product allowed per crop season: 6.0 fluid ounces S-Cloprid 4 AG or 0.18 lb ai/A of any imidacloprid product.
- Do not apply immediately prior to bud opening or during bloom or when bees are actively foraging.
- Not for use on crops grown for seed.

Applications: Apply specified dosage in the following method:

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

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

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

**NOTE:** The rate applied of S-Cloprid 4 AG will affect the length of control as well as the degree and effect of control. Use higher labeled rates where infestations may occur later in crop development or where there is continuous pest pressure. Except as otherwise directed on this label, do not use at application rates lower than 0.7 fluid ounces/1000 row-feet.

# TREE, BUSH AND VINE CROPS

### **BANANA AND PLANTAIN**

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

#### Restrictions:

- Not for use in California.
- Pre-Harvest Interval (PHI): 0 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid

Applications: Apply specified dosage in the following method:

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

#### BUSHBERRY

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

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

# **Restrictions:**

- Pre-Harvest Interval (PHI): 7 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

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

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

• 18-inch band on each side of the row followed by irrigation immediately after application.

For optimal grub control, apply S-Cloprid 4 AG to control 1<sup>st</sup> or 2<sup>nd</sup> instar larvae. Application may be made post-bloom up to 7 days prior to harvest, or post-harvest until October 1<sup>st</sup>. For optimum control of Japanese beetle larvae, make applications from June 1 to July 15.

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

Apply S-Cloprid 4 AG to moist soil. If necessary, apply one hour of irrigation water immediately before application of S-Cloprid 4 AG. To ensure maximum efficacy of soil surface spray, ½ to 1 inch of irrigation water or rainfall should be applied or received within 24 hours of application of S-Cloprid 4 AG to facilitate movement into the soil and into the root-zone.

# CANEBERRY

### Crops of Subgroup 13A including:

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

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Leafhoppers, Whiteflies	8.0-16.0
Rednecked cane borer	12.0-16.0
Pests Suppressed	Rate: Fluid ounces per Acre
Thrips (foliage feeding thrips only)	8.0-16.0

# Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

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

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

### CITRUS (Containerized)

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

Rate mL/ft <sup>3</sup> container media
0.37
0.62-1.25
1.25

#### Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- Maximum S-Cloprid 4 AG rate per application: 0.17 fl. oz. per cubic foot of container medium
- Maximum rate per crop season: 0.1 fl. oz. per plant
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Application: Determine volume of container and calculate dosage necessary to treat container. Apply calculated dosage of S-Cloprid 4 AG per container as a soil drench or through low-pressure drip or trickle irrigation water. Use sufficient carrier volume to ensure thorough uniform distribution throughout the media without loss of gravitational water from the container. For optimal results make planting prior to insect infestation. Retreat if necessary. For control of larvae of the citrus root weevil complex, application should be made prior to neonate larvae entering potting media. Utilize higher dosage for heavy infestations.

### CITRUS (Field)

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

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

### **Restrictions:**

- Pre-Harvest Interval (PHI): 0 day
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.
- Do not apply to trees over 8 feet tall.

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

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

#### COFFEE

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

#### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 7 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid
  product.
- Do not apply pre-bloom or when bees are actively foraging.

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

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation.
- Basal soil drench in sufficient water to insure incorporation into the root-zone followed by irrigation.

### **CRANBERRY**

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

### Restrictions:

- Pre-Harvest Interval (PHI): 30 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Apply S-Cloprid 4 AG to moist soil using one of the following methods:

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

After application, immediately incorporate the S-Cloprid 4 AG into the root-zone by 0.1 - 0.3 inches of water per acre, either with chemigation application, or through irrigation or rainfall. Inadequate incorporation within 24 hours of application may result in reduced control.

### **Rootgrubs and Rootworms**

Make application post-bloom immediately after bees are removed. Applications should target early instar larvae.

S-Cloprid 4 AG has not been tested for crop response in tank mixtures with other registered fungicides or insecticides. If tank mixing is desired, premix a sample of the S-Cloprid 4 AG and the fungicide or insecticide partner at labeled rates and apply to a small area. Evaluate the crop response within 48 hours and for at least two weeks prior to using the tank mix on a larger scale. If crop injury results for the premix test, do not apply the tank mix to larger acreage.

### GRAPE

Including: American bunch grape, Muscadine grape and Vinifera grape

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

# Restrictions:

- Pre-Harvest Interval (PHI): 30 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid
  product.

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

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation.
- Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation.
- For suppression of nematodes, apply 7 fluid ounces in a single application or two 3.5 fluid ounce applications on a 30 to 45 day interval. Apply only by 1) chemigation into the root-zone through above ground low-pressure drip, trickle, microsprinkler or equivalent equipment; or 2) French plow technique, followed immediately by sufficient irrigation to move the product into the entire root-zone of the plant. Repeated and regular use of S-Cloprid 4 AG over several consecutive growing seasons provides the greatest degree of nematode suppression and plant response.

Make application(s) between bud-break and the pea-berry stage. A total of 7 fluid ounces/Acre is recommended under any of the following conditions:

- 1. Where vigorous vine growth is expected;
- 2. In warmer growing areas;
- 3. Where mealybug and European fruit lecanium populations are expected to be heavy;
- 4. Where vine populations exceed 600 per acre, or;
- 5. For suppression of nematodes.

\*Repeated and regular use of S-Cloprid 4 AG over several, consecutive growing seasons controls existing *Phylloxera* infestations over time or prevents *Phylloxera* from becoming established.

# **HOPS**

Pest Controlled	Rate: Fluid ounces per acre
Aphids	9.6

#### Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 60 days
- Maximum soil-applied product allowed per crop season: 9.6 fluid ounces S-Cloprid 4 AG or 0.3 lb ai/A of any imidacloprid product.

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

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

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

### POME FRUIT

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

Crops of Group 11 incidenting. Apple, Crapappic, Edduct, May	maw, real (including Otierital pear), Quince
Pests Controlled	Rate: Fluid ounces per acre
Aphids (including Wooly apple aphid), Leafhoppers	8.0-12.0

### **Restrictions:**

- Pre-Harvest Interval (PHI): 21 days
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any imidacloprid product.
- · Do not apply pre-bloom or during bloom or when bees are actively foraging

Applications: Apply specified dosage in the following method:

• Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

# **POMEGRANATE**

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

# Restrictions:

- Not for use in California
- Pre-Harvest Interval (PHI): 0 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid
  product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Apply specified dosage in the following method:

Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

#### STONE FRUIT

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

Danison, and Japanese), Francoi, France (nest and anea)	
In-field, Soil Application	
Pests Controlled	Rate: Fluid ounces per acre
Aphids (including Woolly apple aphid), Leafhoppers	8.0-12.0

#### Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum soil-applied product allowed per crop season: 12 fluid ounces S-Cloprid 4 AG or 0.38 lb ai/A of any
  imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Apply specified dosage in the following method:

· Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

Pre-plant, Root Dip Application	
Pest Controlled	Rate fluid ounce per 10 gallons root-dip solution
Black peach aphid (infesting roots)	1.0
	is of water. Thoroughly wet bare-root transplant to slightly above the graft in for up to 5 minutes. Allow solution to dry on roots and transplant trees

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

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

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

### Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid
  product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

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

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

# Remarks:

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

TROPICAL FRUIT

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

(1) Not for use in California

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

### Restrictions:

- Pre-Harvest Interval (PHI): 6 days
- Maximum soil-applied product allowed per crop season: 16 fluid ounces S-Cloprid 4 AG or 0.5 lb ai/A of any imidacloprid product.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Apply specified dosage in the following method:

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

# **SEED PIECE TREATMENT**

### **POTATO**

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

#### Restrictions:

- Maximum S-Cloprid 4 AG allowed per crop season: 10.0 fluid ounces/Acre (0.31 lb. Al/Acre)
- Do not use treated seed-pieces for food, feed, or fodder.
- Do not apply any subsequent application of S-Cloprid 4 AG (in-furrow), Gaucho, Leverage, or Provado following a S-Cloprid 4 AG seed-piece treatment.

Application: Apply specified dosage as a diluted spray onto seed-pieces using a shielded spray system. Dilute with 3 parts water, or less, to 1 part S-Cloprid 4 AG. Agitate or stir spray solution as needed. Fungicidal or inert absorbent dusts may be applied after S-Cloprid 4 AG application. Apply only in areas with adequate ventilation or in areas that are equipped to remove spray mist or dust. Plant seed pieces as soon as possible after treating avoiding prolonged exposure of S-Cloprid 4 AG treated seed-pieces to sunlight and in accordance with the recommendation of your local Extension service.

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

# **OTHER CROPS**

# **CHRISTMAS TREE**

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### Restrictions:

- Not for use in California.
- Maximum S-Cloprid 4 AG allowed per season: 16.0 fluid ounces/Acre (0.5 lb Al/A).

**Applications:** Soil incorporation and movement of S-Cloprid 4 AG to the root-zone is required for activity. S-Cloprid 4 AG can be incorporated easiest when applied to moist soil. Apply specified dosage in one of the following methods:

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

For optimal grub control, apply S-Cloprid 4 AG during adult flight activity, or up to mid-July when 1st instar larvae are present.

### POPLAR/COTTONWOOD

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

r Cutting/Whips Application Instructions.	
Rate: Fluid ounces per acre	
8.0-16.0	
8.0-16.0	
	8.0-16.0

#### Restrictions:

- Not for use in California
- Maximum S-Cloprid 4 AG allowed at-plant per crop season: 16.0 fluid ounces/Acre (0.5 lb Al/Acre)
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

# Applications: Apply specified dosage in the following method:

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

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

Cutting/Whip Application Instructions, See above for Field Application Instruction

Pests Controlled	Cutting/Whip Soaking Solution Fluid ounces S-Cloprid 4 AG per 100 gallons
Cottonwood leaf beetle	6.65 – 13.3 (unhydrated cuttings/whips) 13.3 – 20 (partially hydrated cuttings/whips)
Pest Suppressed	
Aphids, Phylloxerina popularia	6.65 – 13.3 (unhydrated cuttings/whips) 13.3 – 20 (partially hydrated cuttings/whips)

#### Restrictions:

Maximum S-Cloprid 4 AG allowed at-plant per crop season: 16.0 fluid ounces/Acre (0.5 lb Al/Acre)
 Applications:

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

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

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

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

# **POULTRY HOUSING STRUCTURES**

# **Darkling and Hide Beetles:**

S-CLOPRID 4 AG may be used indoors as a spot, crack and crevice, or overall surface spray to control darkling beetles and hide beetles on floors, walls, and support beams of poultry or turkey housing structures, and within 25 feet of the perimeter of the poultry house.

### **INSECTICIDE CLASS ROTATIONS:**

In order to avoid problems with developed resistance to insecticides it is important to rotate to an Insecticide of a different classe each 2-3 flocks. It is best to attempt to use 3 different classes of insecticides during a calendar year.

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

# **Restrictions:**

- Do not apply more than 7 days prior to bird placement.
- Do not apply when birds are present.

- Do not allow food or feed to be contacted by the spray.
- Remove feed and water from the treatment area before applying.
- Do not restock birds until spray has completely dried.

Mixing and Application Rates: Calculate the surface area to be sprayed. Apply 3 fl. oz. of S-Cloprid 4 AG per 1000 square feet of surface in 1/2 to 2 gallons of final dilution per 1000 square feet. To prepare the dilution, partly fill the spray tank with 1/2 the water to be used, then add the appropriate amount of S-CLOPRID 4 AG, mix, then add the rest of the water while agitating or mixing. Maintain agitation while spraying. Prepare a fresh mixture for each application.

### How To Apply:

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

If Beetle infestations are very high it may be necessary to treat the footings including 1 foot up onto the walls and the entire floor area of the house.

Also apply as a crack and crevice spray around wall insulation or other areas where beetle may be located. In structures having support beams it is necessary to treat the floor 1 foot around each post and 2 feet up onto the posts. In cases of extreme infestation, treat the entire facility. Apply 3 fl oz per 1000 square feet in 2 gallons of water per 1000 square feet as described above. Apply as a broadcast spray to litter over the entire floor to litter under feed and water lines, and to lower sections of walls to one foot above the foundation.

# Ants in and around animal housing facilities:

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

Apply at a rate of 3/4 teaspoon to I 1/2 teaspoons S-CLOPRID 4 AG per gallon of water (2 1/2 teaspoons to 2 1/2 fl. ounces per 10 gallons). Spray into cracks, crevices, drilled holes, onto walls, and around potential entry points such as doors, windows, vents, eaves, soffits, and utility access holes. If nests are present in voids, spray into the void if possible, or apply as a foam. (See specific instructions of foam generator). Spray surfaces to provide complete coverage but do not spray to dripping or runoff.

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

### Restrictions:

- Do not use to control native or imported fire ants, harvester ants or pharaoh ants.
- Keep people and domestic animals out of the treated area until sprays have dried.

# STORAGE AND DISPOSAL

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

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

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

**Container Disposal: Non-refillable containers.** Do not reuse or refill this container. Offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

**Container less than or equal to 5 gallons:** 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.

Container greater than 5 gallons: 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. 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 back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

#### WARRANTY STATEMENT

J. OLIVER PRODUCTS, LLC warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of J. OLIVER PRODUCTS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer. Except as expressly provided herein, J. OLIVER PRODUCTS, LLC makes no warranties, guarantees, or representations of any kind, either expressed or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including, but not limited to merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage. To the extent consistent with applicable law, the exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall be damages not exceeding the purchase price paid for this product or, at J. OLIVER PRODUCTS, LLC election, the replacement of this product.

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

# Additional/ Alternate Marketing Claims

- One Dose Formula
- Dust Free
- Rapid mixing
- Quick Mixing and Spraying
- Mix and spray liquid formula
- Quick to mix and apply
- Easy to apply, hard on darkling beetles
- Formulated for control of darkling beetles
- Darkling beetle control liquid formulation

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- Easy to apply, hard on darkling beetles
- Formulated for control of darkling beetles
- Darkling beetle control liquid formulation
- Formulated for use in the poultry industry
- Formulated for effective control of darkling beetles in the poultry industry
- Contains imidacloprid [a chloronicotinyl insecticide] [ neonicotinoid insecticide]
- Controls Darkling beetles that may [carry] [spread] [transmit] poultry disease-causing organisms
- Controls darkling beetles that can damage [buildings] [ceilings] [walls] [insulation]
- Controls darkling beetles that can feed on grain
- Controls both larvae and adults of [darkling beetle] [lesser mealworm] [hide beetle]
- Effective against both larvae and adults of [darkling beetle] [lesser mealworm] [hide beetle]
- Stops the damage and risks caused by darkling beetles
- - Stops darkling beetles from [eating] [taking] your profits
- - Effective control of [specified ants] [darkling beetles] lesser mealworms] [hide beetles]
- [Targeted].[Banded] application provides effective control of [darkling beetles] lesser mealworms] [hide beetles]
- One dose. Effective and easy to use
- [Focused] [Targeted] band treatment
- Allows labor-saving band treatment
- Less time-consuming band treatment
- Use less insecticide with [banded] [targeted] application
- Use less insecticide per [house] [building] [barn] with [banded] [targeted] application
- Time-saving band treatment
- Easy and flexible treatment options
- Easy and targeted control of [darkling beetles] lesser mealworms] [hide beetles]
- Mix and spray fast and flexible treatment options
- Broadcast or banded treatment
- May be applied as either band or broadcast spray
- Controls even (pyrethroid] [spinosad] [organophosphate] resistant [darkling beetles] lesser mealworms] [hide beetles]
- Control exactly where you need it
- Flexible application for any poultry operation
- The active ingredient in S-Cloprid 4 AG has been shown to provide effective control of [specified ants] [darkling beetles] [lesser mealworms] [hide beetles]
- Controls darkling beetle adults and larvae
- The solution to control of [darkling beetles] lesser mealworms] [hide beetles]
- Rotate with pyrethroid insecticides to manage resistance
- Manage resistance with a rotation of S-Cloprid 4 AG and pyrethroids