

87290-14

02-09-2011

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Chemical Safety
and Pollution Prevention
Registration Division (H7505P)
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

EPA Reg.
Number:

87290-14

Date of Issuance:

Term of Issuance: **Unconditional**

Name of Pesticide Product:

Willowood Imidacloprid 4SC

NOTICE OF PESTICIDE:

Registration
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Ms. Catherin M. Byrd
Willowood, LLC
c/o Wagner Regulatory Associates, Inc.
P.O. Box 640
Hockessin, DE 19707

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. "87290-14".

Signature of Approving Official:

Venus Eagle
Product Manager 01
Insecticide-Rodenticide Branch
Registration Division (7504P)

Date:

FEB 09 2011

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2. 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.

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87290-XX-V1-4FEB11
Draft Label EPA Initial Registration

Willowood Imidacloprid 4SC

ACTIVE INGREDIENT	% BY WT.
Imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl] -N-nitro-2-imidazolidinimine.....	40.7%
OTHER INGREDIENTS:	59.3%
TOTAL:	100.0%

Contains 4 lbs. of active ingredient per gallon.

Shake well before using.
STOP-Read the label before use.
KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID
IF SWALLOWED: <ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING: <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED: <ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF IN EYES: <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</p> <p>For 24-hour medical emergency assistance (human or animal) call 1-800-222-1222. For Chemical emergency assistance (spill, leak, fire, or accident) call ChemTrec at 1-800-424-9300.</p>
<p>NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.</p>

See inside booklet for additional Precautionary Statements, Directions for Use, and Limitation of Warranty and Liability.

Manufactured For:
Willowood LLC
1600 NW Garden Valley Blvd. Suite 130
Roseburg, OR 97471

EPA Reg. No. 87290-14
ACCEPTED

EPA Est. No. 37429-GA-02

FEB 09 2011
Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for the
pesticide registered under:

Net Contents: 1 Gallon

EPA. Reg. No: 87290-14

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

Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with skin, eyes, or clothing. 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:

- 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.

ENGINEERING CONTROLS STATEMENT

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/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.

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

SPRAY DRIFT MANAGEMENT

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

For Aerial Applications

For aerial applications, mount the spray boom on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length must not exceed 75% of the wing span or rotor diameter. Release the spray at the lowest possible height consistent with good pest control and flight safety. Do not make applications more than 10 feet above the crop canopy.

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, make applications to deliver the largest droplet spectrum that provide sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the airstream as much as possible and by avoiding excessive spray boom pressure.

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.

Mixing and Loading Requirements

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

Airblast (Air Assist) Instructions for Tree Crops and Vineyards

Airblast sprayers carry droplets into the canopy of trees/vines via a radially, or laterally directed air stream. The following specific drift management practices must be followed:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow the spray to go beyond the edge of the cultivated area (i.e., turn off sprayer when turning at end rows).
- Only spray inward, toward the orchard or vineyard, for application to the outside rows.

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 Willowood Imidacloprid 4SC on erodible soils, employ the Best Management Practice to minimize runoff. Consult your local Natural Resources Conservation Service for recommendations in your use area.

Endangered Species Notice

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

Resistance Management

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

Willowood Imidacloprid 4SC 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 Willowood Imidacloprid 4SC and to other Group 4A insecticides.

The active ingredient in Willowood Imidacloprid 4SC is a member of the neonicotinoid chemical class. Insect pests resistant to other chemical classes have not shown cross-resistance to Willowood Imidacloprid 4SC. 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 Willowood Imidacloprid 4SC be made; 2) foliar applications of products from the same class not be made following a long residual, soil application of Willowood Imidacloprid 4SC, or other neonicotinoid products.

If a soil application of Willowood Imidacloprid 4SC 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 Willowood Imidacloprid 4SC and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, MANA 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 Willowood Imidacloprid 4SC 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 Max, Nuprid, Platinum, Venom, and Widow.

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

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 DIRECTIONS

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

Do not apply Willowood Imidacloprid 4SC in enclosed structures such as planthouses or greenhouses except as specified in the **TOBACCO, CUCURBIT VEGETABLES, FRUITING VEGETABLES and GREENHOUSE VEGETABLES**, (Mature plants in production greenhouses): Cucumber, Tomato only sections of this label.

Applications of Willowood Imidacloprid 4SC for foliar applications must be applied as a directed or broadcast foliar spray. Thorough coverage of foliage is necessary without runoff for optimum insecticidal efficacy. Use adequate spray volumes, properly calibrated application equipment, and spray adjuvant if necessary to obtain thorough coverage. Failure to provide adequate coverage and retention of Willowood Imidacloprid 4SC on leaves and fruit may result in loss of insect control or delay in onset of activity. Apply Willowood Imidacloprid 4SC with properly calibrated ground or aerial application equipment. Use minimum spray volumes unless otherwise specified on crop specific application sections are 10 gallons per acre by ground and 5 gallons per acre by air. Willowood Imidacloprid 4SC may also be applied

by overhead chemigation (see additional information in "Chemigation" section of this label below) if allowed in crop specific application section.

When applied as a soil application, optimum activity of Willowood Imidacloprid 4SC results from applications to the root-zone of plants to be protected. The earlier Willowood Imidacloprid 4SC is available to a developing plant, the earlier the protection begins. Willowood Imidacloprid 4SC is continuously taken into the roots over a long period of time and the systemic nature of Willowood Imidacloprid 4SC allows movement from roots through the xylem tissue to all vegetative parts of the plant. This results in extended residual activity of Willowood Imidacloprid 4SC, the control of insects, and the prevention and/or reduction of virus transmission or symptom expression, and plant health benefits. The rate of Willowood Imidacloprid 4SC 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. Willowood Imidacloprid 4SC 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. Additionally, specific Willowood Imidacloprid 4SC application directions 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 Willowood Imidacloprid 4SC application. Complete control of these pests/diseases may require supplemental control measures.

Willowood Imidacloprid 4SC use on crops grown for production of true seed intended for private or commercial planting is generally not permitted but may be allowed under state specific, supplemental labeling. As with any insecticide, care must be taken to minimize exposure of Willowood Imidacloprid 4SC to honey bees and other pollinators. Do not use Willowood Imidacloprid 4SC on crops requiring bee pollination during bloom and a minimum of 10 days prior to bloom. Additional information on Willowood Imidacloprid 4SC uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, consultants, or local Willowood LLC. representatives.

Make application 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.

Pre-mix Willowood Imidacloprid 4SC with water or other appropriate diluent prior to application. Keep Willowood Imidacloprid 4SC and water suspension agitated to avoid settling.

Do not apply more than 0.5 lb. active ingredient per acre per crop season regardless of formulation or method of application.

MIXING INSTRUCTIONS

To prepare the application mixture, add a portion of the required

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

Mixing Order

When pesticide mixtures are needed, add wettable powders or wettable granules first, Willowood Imidacloprid 4SC 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 Willowood Imidacloprid 4SC 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 poor mixing or formation of precipitates do not readily redisperse. This indicates an incompatible mixture.

CHEMIGATION

Types of Irrigation Systems: Foliar chemigation applications of Willowood Imidacloprid 4SC may be made to crops through overhead sprinkler systems if specified in crop-specific application sections. Soil chemigation applications of Willowood Imidacloprid 4SC may only be made to crops through chemigation as specified in crop-specific application sections and only through low-pressure systems specifically identified for a given crop. Do not apply Willowood Imidacloprid 4SC through any other type of irrigation system.

Make foliar chemigation applications of Willowood Imidacloprid 4SC as concentrated as possible. Retention of Willowood Imidacloprid 4SC on target site of insect infestation is necessary for optimum activity. Chemigation of Willowood Imidacloprid 4SC in water volumes exceeding .10 inches per acre are not permitted. See crop-specific application sections of the label for more information.

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

Chemigation Monitoring: A person knowledgeable of the chemigation system and responsible for its operation, or under the

supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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

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

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

fitted with a system interlock.

ROTATIONAL CROPS*

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 must be observed.

IMMEDIATE PLANT-BACK:

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

30-DAY PLANT-BACK:

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

10-MONTH PLANT-BACK:

Onion and bulb vegetables

12-MONTH PLANT-BACK:

All Other Crops

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

FIELD CROPS

COTTON - soil treatment

Pests Controlled	Rate: Fluid ounces per 1000 row-feet	Rate: Fluid ounces per acre
Cotton aphid, Plant bugs, Thrips, Whiteflies	0.65	8.5-10.55 (depending on row-spacing)
<p>Restrictions:</p> <ul style="list-style-type: none"> • Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 10.55 fluid ounces per acre (0.33 lb active ingredient per acre). • Regardless of formulation or method of application, apply no more than 0.5 lb. active ingredient per acre per season, including seed treatment, soil, and foliar uses. • Do not apply more than a total of 6 applications of the active ingredient per season. • Do not graze treated fields after any application of Willowood Imidacloprid 4SC. See Resistance Management Section of this label. <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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. 		

COTTON-foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Cotton aphid, Cotton fleahopper, Bandedwinged whitefly, Plant bugs (excludes <i>Lygus hesperus</i>), Green stink bug, Southern green stink bug, Bollworm/bud worm (ovicidal effect)	1 - 2
Pests Suppressed	
Lygus bug (<i>Lygushesperus</i>), Whiteflies (other than bandedwinged)	1.52 - 2
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 14 days • Minimum interval between applications: 7 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 10 fluid ounces per acre (0.31 lb. AI per acre). • Regardless of formulation or method of application, apply no more than 0.5 lb. active ingredient per acre per season, including seed treatment, soil, and foliar uses. • Do not graze treated fields after any application of Willowood Imidacloprid 4SC. • Apply Willowood Imidacloprid 4SC through properly calibrated ground, aerial, or chemigation application equipment. • Do not apply more than a total of 6 applications of the active ingredient per season. <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to an infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p>	

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Tank Mix Instructions

Pests Controlled (in addition to pests listed above)	Willowood Imidacloprid 4SC Rate: Fluid ounces per acre	Bidrin® 8* Rate: Fluid ounces per acre
For early season control of: Thrips	1 - 1.52	1.6 - 3.2
For mid to late season control of: Plant bugs, Stink bugs (including Brown stink bug), Grasshoppers, Saltmarsh	1 - 1.52	4.0 - 8.0
* Refer to the Bidrin 8 product label for specific use directions. Observe all restrictions and precautions that appear on the label.		

POTATO - soil treatment

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 at-planting)	0.45 - 0.65	6.5 - 10.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 10.0 fluid ounces per acre (0.31 lb active ingredient per acre). <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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, Willowood Imidacloprid 4SC 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 Willowood Imidacloprid 4SC may be made in a 2 to 4 inch band (width of planter shoe opening) and completely covered. 		

POTATO - seed piece treatment

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
<p>Restrictions:</p> <ul style="list-style-type: none"> • Maximum Willowood Imidacloprid 4SC allowed per crop season when making seed piece treatment applications: 10.0 fluid ounces per acre (0.31 lb. active ingredient per acre). • Do not use treated seed-pieces for food, feed, or fodder. • Do not apply any subsequent application of Willowood Imidacloprid 4SC (in-furrow), Gaucho, Leverage, or Provado following an Willowood Imidacloprid 4SC seed-piece treatment. <p>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 Willowood Imidacloprid 4SC. Agitate or stir spray solution as needed. Fungicidal or inert absorbent dusts may be applied after Willowood Imidacloprid 4SC 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 Willowood Imidacloprid 4SC treated seed-pieces to sunlight and in accordance with the direction of your local Extension service.</p> <p>* Based on a seeding rate of 2000 lbs. per acre.</p>		

POTATO - foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Psyllids	1.52
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum Interval between applications: 7 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 6.4 fluid ounces per acre (0.2 lb. AI per acre) <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to an infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC maybe tank mixed with other insecticides as recommended for knockdown of pests or for improved control of other pests.</p>	

SOYBEANS*

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Bean leaf beetle, Cucumber beetles/Rootworm adults, Japanese beetle (adults), Leafhoppers, Whiteflies	1.5
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-harvest Interval (PHI): 7 days • Minimum interval between applications: 7 days • Maximum Willowood Imidacloprid 4SC allowed per crop season: 4.5 fl oz/acre (0.14lb AI/A) <p>*Not for use in California or New York state unless accompanied by approved supplemental labeling.</p>	

TOBACCO-soil treatment

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:

- Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications or foliar sprays to seedlings: 16.0 fluid ounces per acre (0.5 lb. active ingredient per acre).
- Pre-Harvest Interval (PHI): 14 days

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 Willowood Imidacloprid 4SC from foliage into potting media. Failure to wash Willowood Imidacloprid 4SC 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 Willowood Imidacloprid 4SC have been shown to be the most efficacious method of application. However, the specified rate of Willowood Imidacloprid 4SC 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 Willowood Imidacloprid 4SC into the plant and a delay in control.

TOBACCO - foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids	0.8-1.6
Flea beetles, Japanese beetle	1.6
<p>Restrictions:</p> <ul style="list-style-type: none">• Pre-Harvest Interval (PHI): 14 days• Minimum interval between applications: 7 days• Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 8.9 fluid ounces per acre (0.28 lb. AI per acre) <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to an infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC maybe tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p>	

VEGETABLE AND SMALL FRUIT CROPS

CUCURBIT VEGETABLES¹ - soil treatment

Crops of Crop 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 Planthouse table for additional 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
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum Willowood Imidacloprid 4SC allowed per application when making soil applications: 12.0 fluid ounces per acre (0.38 lb/active ingredient per acre). <p>¹Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply in one of the following methods:</p> <ul style="list-style-type: none"> • 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 1-1/2 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. Willowood Imidacloprid 4SC must be incorporated into root-zone. 	

Planthouse Application Instructions*	
Pests Controlled	Rate: Fluid ounces per 1000 plants
Aphids, Whiteflies	0.05
<p>Restrictions:</p> <ul style="list-style-type: none"> • Maximum amount Willowood Imidacloprid 4SC applied in the planthouse: 0.05 fluid ounces (0.00156 lb. active ingredient per 1000 plants). • Maximum number Willowood Imidacloprid 4SC applications in planthouse: 1 <p>* Use not permitted in CA unless otherwise directed by supplemental labeling.</p> <p>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:</p> <ul style="list-style-type: none"> • Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash Willowood Imidacloprid 4SC from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash Willowood Imidacloprid 4SC from foliage may result in reduced pest control. • Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray. • The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Handle transplants carefully during setting to avoid dislodging treated potting media from roots. <p>Important Note: Not all varieties of cucurbit vegetables have been tested for tolerance to Willowood Imidacloprid 4SC applied to seedling flats. Treat a small number of plants to confirm tolerance for 7 days prior to treating entire planthouse.</p>	

GREENHOUSE VEGETABLES¹ - soil treatment

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

Pests Controlled	Rate: Fluid ounces per 1000 plants
Aphids, Whiteflies	0.7
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day • Maximum number Willowood Imidacloprid 4SC applications per crop season when making soil applications: 1 <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified dosage in a minimum of 16 gallons of water for tomatoes and 21 gallons of water for cucumbers using soil drenches, micro-irrigation, drip irrigation, or hand-held or motorized calibrated irrigation equipment. Make application only to plants grown in field-type soils, potting media, or mixtures thereof. Do not apply to plants grown in non-soil medias such as perlite, vermiculite, rock wool or other soil-less media, or plants growing hydroponically. Do not apply to immature plants since phytotoxicity may occur. Make application when infestation pressure surpasses threshold and beneficials are not able to maintain pest populations below damage thresholds. Repellency of bumble bee pollinators and negative effects on some beneficials (<i>Oriusspp.</i>) can occur when Willowood Imidacloprid 4SC is applied.</p> <p>Many varieties of vegetables have been tested for tolerance to Willowood Imidacloprid 4SC and show good safety. However, certain varieties may show more sensitivity to Willowood Imidacloprid 4SC. Treat a few plants before treating the whole greenhouse.</p>	

FRUITING VEGETABLES¹ - soil treatment

Crops of Crop 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 additional plant-house instructions.	
Pests Controlled	Rate: Fluid ounces per acre
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	Okra and Pepper; 8.0-16.0 Other Crops; 8.0-12.0
Diseases Suppressed	
Symptoms of: Tomato mottle virus, Tomato spotted wilt virus, Tomato yellow leaf curl virus	Okra and Pepper; 8.0-16.0 Other Crops; 8.0-12.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum Willowood Imidacloprid 4SC allowed on pepper and okra crops per application when making soil applications: 16.0 fluid ounces/Acre (0.5 lb A.I. per acre). • Maximum Willowood Imidacloprid 4SC allowed on other fruiting vegetable crops per application when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI/per acre). <p>¹Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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 1-1/2 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. Willowood Imidacloprid 4SC must be incorporated into root-zone. 	

Planthouse Application Instructions¹

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

Restrictions:

- Maximum amount Willowood Imidacloprid 4SC applied in the planthouse: 0.05 fluid ounces (0.00156 lb A.I.) per 1000 plants.
- Maximum number Willowood Imidacloprid 4SC applications in planthouse: 1

¹Use not permitted in CA unless otherwise directed by supplemental labeling.

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 Willowood Imidacloprid 4SC from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash Willowood Imidacloprid 4SC from foliage may result in reduced pest control.
- Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

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

Important Note: Not all varieties of fruiting vegetables have been tested for tolerance to Willowood Imidacloprid 4SC applied to seedling flats. Treat a small number of plants to confirm tolerance for 7 days prior to treating entire planthouse.

FRUITING VEGETABLES ¹ - foliar treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Colorado potato beetle, Leafhoppers, Whiteflies	1.5-2.4
Pepper weevil	2.4

Restrictions:

- Pre-Harvest Interval (PHI): 0 day
- Minimum interval between applications: 5 days
- Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 7.6 fluid ounces per acre (0.24 lb AI per acre).

¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

Applications:

Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.

Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.

For pepper weevil, apply specified dosage of Willowood Imidacloprid 4SC by ground equipment only, timing applications prior to a damaging population becoming established. Good coverage of foliage and fruit is necessary for optimum control. Applications of Willowood Imidacloprid 4SC must be incorporated into a full-season program where alternations of effective products from multiple classes of chemistry and different modes of action are utilized in a blocked or windowed approach.

For additional information, please contact your Willowood LLC representative, Extension Specialist or crop advisor.

When targeting adult whiteflies, use higher rates.

GLOBE ARTICHOKE - foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers	1.6-4.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 14 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 16 fluid ounces per acre (0.5 lb AI per acre). <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests. Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.</p>	

HERBS¹-soil treatment

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

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

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum Willowood Imidacloprid 4SC per season when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI/Acre).
- ¹ Use not permitted in California unless otherwise directed by supplemental labeling.

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.
- Shanked-into or below eventual seed-line.
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

Notes: Not all crops and/or varieties listed above have been tested for phytotoxic effects. Without specific knowledge about a particular crop and variety, treat only small areas or numbers of plants and evaluate effectiveness prior to commercial use.

HERBS¹ - foliar treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 5 days • Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 4.2 fluid ounces per acre (0.13 lb AI per acre). <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p> <p>Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.</p> <p>Apply Willowood Imidacloprid 4SC through properly calibrated ground and aerial application equipment. Thorough coverage with direct contact of the spray material to the target pests is required for optimum control. The addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's use rate may improve coverage and control.</p> <p>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 small areas or numbers of plants and evaluate effectiveness prior to commercial use.</p>	

BRASSICA (COLE) LEAFY VEGETABLES¹ - soil treatment

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

Pests Controlled	Rate: Fluid ounces per acre (on 36 inch rows)
Aphids, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	5.0-12.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum Willowood Imidacloprid 4SC allowed per application when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI per acre). <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. • In-furrow spray directed on or below seed. • Narrow (2 inches or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1-1/2 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. Willowood Imidacloprid 4SC must be incorporated into root-zone. 	

BRASSICA (COLE) LEAFY VEGETABLES ¹ - foliar treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Fleabeetles, Leafhoppers, Whiteflies	1.5
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 5 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 7.68 fluid ounces/Acre (0.38 lb AI per acre). <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p> <p>Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.</p>	

LEAFY VEGETABLES ¹ - soil treatment

Crops of Crop 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), Whiteflies	5.0-12.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum Willowood Imidacloprid 4SC allowed per application when making soil applications: 12.0 fluid ounces per acre (0.38 lb AI per Acre). <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. • In-furrow spray directed on or below seed • Narrow (2 inches or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1-1/2 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. Willowood Imidacloprid 4SC must be incorporated into root-zone. 	

Leafy Vegetables¹ - foliar treatment

Crops of Crop 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
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.5
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 5 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 7.6 fluid ounces per acre (0.24 lb AI per acre). <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p> <p>Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.</p> <p>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 applications. Applications must be made to fully leafed-up canopies only.</p>	

LEAFY PETIOLE VEGETABLES ¹ - soil treatment

Crops of Crop 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), Whiteflies	5.0-12.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 45 days • Maximum Willowood Imidacloprid 4SC allowed per application when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI per acre). <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. • In-furrow spray directed on or below seed. • Narrow (2 inches or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1-1/2 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. Willowood Imidacloprid 4SC must be incorporated into root-zone. 	

LEGUME VEGETABLES¹ except soybean, dry - soil treatment
Crops of Crop 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, cat-jang, 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
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI per acre). <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. • In-furrow spray at planting directed on or below seed. • In a narrow (2 inches or less) surface band over seed-line during planting incorporated to a depth of 1 to 1-1/2 inches with sufficient irrigation with 24 hours following application. • In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting. • As a post-seeding drench, transplant drench, or hill drench. 	

LEGUME VEGETABLES¹ except soybean, dry - foliar treatment
Crops of Crop 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, cat-jang, 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, Whiteflies	1.4

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 4.2 fluid ounces per acre (0.13 lb AI per acre).

¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build.

Thorough uniform coverage is necessary to achieve optimum control.

A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control.

Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.

Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.

ROOT VEGETABLES¹ - soil treatment

Crops of Crop Subgroup 1B except Sugarbeet including: Beet (garden)², Burdock (edible)², Carrot², Celeriac², Chervil (turnip-rooted)², Chicory², Ginseng, Horseradish, Parsley (turnip-rooted), Parsnip², Radish², Oriental radish (diakon)², Rutabaga², Salsify (oyster plant), Salsify (black)², Salsify (Spanish), Skirret, and Turnip²

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

Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI per acre).
- Maximum Willowood Imidacloprid 4SC soil applications per crop season: 1

¹ Not for use on crops grown for seed unless allowed by a state-specific supplemental labeling.

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.

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

² Tops or greens from these crops may be utilized for food or feed.

ROOT VEGETABLES¹ - foliar treatment

Crops of Crop Subgroup 1B except Sugarbeet including: Beet (garden)², Burdock (edible)², Carrot², Celeriac², Chervil (turnip-rooted)², Chicory², Ginseng, Horseradish, Parsley (turnip-rooted), Parsnip², Radish², Oriental radish (diakon)², Rutabaga², Salsify (oyster plant), Salsify (black)², Salsify (Spanish), Skirret, Turnip²

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 5 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 1.4 fluid ounces per acre (0.44 lb AI per acre) on Radish, 4.2 fluid ounces per acre (0.13 lb AI per acre) on other crops. • Maximum Willowood Imidacloprid 4SC application(s) per crop season: 1 on radish, 3 on all other crops. <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p> <p>Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.</p> <p>² Tops or greens from these crops <u>may</u> be utilized for food or feed.</p>	

TUBEROUS and CORM VEGETABLES¹ - soil treatment

Crops of Crop Subgroup 1C including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter and sweet)², Chayote (root), Chufa, Dasheen (taro)², Ginger, Leren, Sweet potato, Tanier (cocoyam)², Turmeric, Yam bean (jicama, manioc pea), Yam (true)² (For recommended applications on potato see Field Crops section)

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

Restrictions:

- Pre-Harvest Interval (PHI) from planting application: 3 days (leaves); 125 days (corms).
- Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI per acre).
- Maximum Willowood Imidacloprid 4SC soil applications per crop season: 1

¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

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

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

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

² Tops or greens from these crops may be utilized for food or feed.

TUBEROUS and CORM VEGETABLES¹ - foliar treatment

Crops of Crop Subgroup 1C including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter and sweet)², Chayote (root), Chufa, Dasheen (taro)², Ginger, Leren, Sweetpotato², Tanier (cocoyam)², Turmeric, Yam bean (jicama, manioc pea), Yam (true)² (For recommended applications on potato see Field Crops section)

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 5 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 1.4 fluid ounces per acre (0.44 lb AI per acre) on Radish, 4.2 fluid ounces per acre (0.13 lb AI per acre) on other crops. • Maximum Willowood Imidacloprid 4SC application(s) per crop season: 3 on all crops <p>¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p> <p>Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.</p> <p>² Tops or greens from these crops <u>may</u> be utilized for food or feed.</p>	

STRAWBERRY¹ - soil treatment

Annual and Perennial Crops	
Pests Controlled	Rate: Fluid ounces per acre
Aphids, Whiteflies	12.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 14 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 16.0 fluid ounces/Acre (0.50 lb AI per acre). <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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. Plastic or other mulches that limit movement of Willowood Imidacloprid 4SC into root zone are not permitted. <p>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.</p>	

STRAWBERRY¹ - soil treatment (continued)

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
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 14 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 12.0 fluid ounces per acre (0.38 lb A.I. per acre). <p>¹ Do not use both application methods on the same crop in the same season.</p> <p>Applications: Apply a single application post harvest to coincide with renovation of strawberry fields and during active egg-laying period of beetles. Apply specified dosage of Willowood Imidacloprid 4SC in one of the following methods:</p> <ul style="list-style-type: none"> • 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. <p>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 Willowood Imidacloprid 4SC into egg-deposition zone may result in decreased activity.</p>	

STRAWBERRY - foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Spittlebugs, Whiteflies	1.5
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 5 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 4.5 fluid ounces per acre (0.14 lb. AI per acre). • Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging. <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p> <p>Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to the EPA website (www.epa.gov) for latest Crop Groups.</p>	

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SUGARBEET¹ - soil treatment

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 Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 6.0 fluid ounces/Acre (0.18 lb AI per acre).
- Do not apply immediately prior to bud opening or during bloom or when bees are actively foraging.

¹ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

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 ounces	Rate: Fluid ounces/1000 row-feet Based on <u>average</u> row spacing (in inches):							
	10	15	20	25	30	35	40	45
5	0.0475	0.0712 5	0.09 5	0.1187 5	0.1425	0.1662 5	0.1 9	0.21375
6	0.057	0.0855	0.11 4	0.1425	0.171	0.1995	0.22 8	0.2565
7	0.0665	0.0997 5	0.13 3	0.1662 5	0.1995	0.2327 5	0.26 6	0.29925
8	0.076	0.114	0.15 2	0.19	0.228	0.266	0.30 4	0.342
9	0.0855	0.1282 5	0.17 1	0.2137 5	0.2565	0.2992 5	0.34 2	0.38475
10	0.095	0.145	0.1 9	0.24	0.285	0.335	0.3 8	0.43
12	0.115	0.17	0.2 3	0.285	0.345	0.4	0.4 6	0.515
14	0.135	0.02	0.2 7	0.335	0.4	0.47	0.53 5	0.605
16	0.155	0.23	0.30 5	0.385	0.46	0.535	0.6 1	0.69
18	0.17	0.26	0.34 5	0.43	0.515	0.605	0.6 9	0.775
20	0.19	0.285	0.3 8	0.48	0.575	0.67	0.76 5	0.86
22	0.21	0.315	0.4 2	0.525	0.63	0.735	0.84	0.945
24	0.23	0.345	0.4 6	0.575	0.69	0.805	0.9 2	1.035
26	0.25	0.375	0.49 5	0.62	0.745	0.87	0.99 5	1.12
28	0.27	0.4	0.53 5	0.67	0.805	0.935	1.0 7	1.205
30	0.285	0.43	0.57 5	0.715	0.86	1.005	1.14 5	1.29
32	0.305	0.46	0.6 1	0.76	0.92	1.07	1.22 5	1.375

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**TREE, BUSH, and VINE
CROPS BANANA and PLANTAIN¹ - soil treatment**

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers	8.0-16.0
Pests Suppressed	
Scales	8.0-16.0
Restrictions: <ul style="list-style-type: none">• Pre-Harvest Interval (PHI): 0 day• Maximum Willowood Imidacloprid 4SC allowed per crop season when making soil applications: 16.0 fluid ounces per Acre (0.5 lb AI per A) ¹ Use not permitted in California unless otherwise directed by supplemental labeling. Applications: Apply specified dosage in the following method: <ul style="list-style-type: none">• Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.	

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BANANA and PLANTAIN¹ - foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Thrips	3.2
<p>Restrictions:</p> <ul style="list-style-type: none">• Pre-Harvest Interval (PHI): 0 day• Minimum interval between applications: 14 days• Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 16.0 fluid ounces per acre (0.5 lb AI per acre) <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, recommended application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.</p> <p>Apply specified dosage as a broadcast or directed spray to infested area insuring thorough coverage. Apply Willowood Imidacloprid 4SC through properly calibrated ground or aerial application equipment. Aerial applications of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. Addition of an organosilicone adjuvant at a rate not to exceed 2.0 fluid ounces per 100 gallons, finished spray solution may improve coverage and pest control.</p>	

BUSHBERRY-soil treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Japanese beetle: (adults, feeding on foliage), White grub complex: (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental beetle)	8.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI per acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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. <p>For optimal grub control, apply Willowood Imidacloprid 4SC to control 1 st or 2nd instar larvae. Application may be made post-bloom up to 7 days prior to harvest, or post-harvest until October 1st. For optimum control of Japanese beetle larvae, make applications from June 1 to July 15.</p> <p>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.</p> <p>Apply Willowood Imidacloprid 4SC to moist soil. If necessary, apply one hour of irrigation water immediately before application of Willowood Imidacloprid 4SC. To ensure maximum efficacy of soil surface spray, 1/2 to 1 inch of irrigation water or rainfall needs be applied or received within 24 hours of application of Willowood Imidacloprid 4SC to facilitate movement into the soil and into the root-zone.</p>	

BUSHBERRY - foliar treatment

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

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

Restrictions:

- Pre-Harvest Interval (PHI): 3 days
- Minimum interval between applications: 7 days
- Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 16 fluid ounces per acre (0.5 lb AI per acre).
- Maximum number of Willowood Imidacloprid 4SC applications per crop season when making foliar applications: 5
- Minimum application volume (water): 20.0 GPA - ground, 5.0 GPA - aerial.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.

CANEBERRY - soil treatment

For use only in CA

Crops of Crop Subgroup 13A including:

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

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

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

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI per acre).
- 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) - soil treatment

Crops of Crop 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: ml/ft³ container media
Aphid, Asian citrus psyllid, Blackfly, Citrus leafminer, Leafhoppers/Sharpshooters , Mealybugs, Scales, Whiteflies	0.37
Citrus root weevil (larval complex)	0.62-1.2
Pests Suppressed	
Citrus thrips (foliage feeding thrips only)	1.25
<p>Application: Determine volume of container and calculate dosage necessary to treat container. Apply calculated dosage of Willowood Imidacloprid 4SC 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, treat at 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.</p>	

CITRUS (Field)-soil treatment

Crops of Crop 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

CITRUS (Field) - soil treatment (continued)

Restrictions:

- Pre-Harvest Interval (PHI): 0 day
- Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI per 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. For optimum results, apply to newly planted trees or those previously trained to drip, trickle or micro-sprinkler irrigation. Soil should be lightly pre-wetted to break soil surface tension prior to applications of Willowood Imidacloprid 4SC. Chemigation application can be made separate to normal irrigation but followed by 10 to 20 minutes of additional watering to move Willowood Imidacloprid 4SC into root-zone. Allow 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, to be followed immediately with light sprinkler irrigation sufficient to move the product into the upper portion of the root-zone. This method is suitable for very coarse soils with 0.75% organic matter or less.
- Drench to base of tree not exceeding one-quart total solution per tree immediately around trunk of tree and extending outward covering the entire fibrous root system of the tree. For use on trees up to 8 feet tall.
- 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 vicinity 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 Willowood Imidacloprid 4SC over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

CITRUS (Field) – foliar treatment

Crops of Crop 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, Leafhoppers/ Sharpshooters, Leafminers, Mealybugs, Scales, Whiteflies	4.0 - 8.0 (depending on tree size, target pest and infestation pressure)
Pests Suppressed	
Thrips (foliage feeding thrips only)	4.0-8.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day • Minimum interval between applications: 10 days • Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 16 fluid ounces per acre (0.5 lb AI per acre). • Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging. <p>Applications: Scales - time applications to the crawler stage. Treat each generation.</p> <p>Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.</p>	

COFFEE¹- soil treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers , Leafminers	8.0-16.0
Pests Suppressed	
Scales	8.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces per Acre (0.5 lb AI per acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. • Subsurface side-dress shanked into the root-zone on both side of the plants followed by irrigation. • Basal, soil drench in sufficient water to insure incorporation into the root-zone followed by irrigation. 	

COFFEE¹ - foliar treatment

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

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 16 fluid ounces per Acre (0.5 lb AI/Acre).
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

¹ Use not permitted in California unless otherwise directed by supplemental labeling.

Applications: Apply specified dosage as a broadcast or directed spray to infested area insuring thorough coverage. Willowood Imidacloprid 4SC may be applied through properly calibrated ground or aerial application equipment. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application.

Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.

CRANBERRY-soil treatment

Pests Controlled	Rate: Fluid ounces per acre
Rootgrubs (Scarabaeidae), Rootworms (Chrysomelidae)	8.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 30 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI/Acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Applications: Apply Willowood Imidacloprid 4SC to moist soil. Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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 water. <p>Immediately upon application, Willowood Imidacloprid 4SC must be incorporated into root-zone by 0.1 - 0.3 inches water/Acre, either with the chemigation application or through irrigation/rainfall if not applied through chemigation. Inadequate incorporation within 24 hours of application may result in reduced control.</p> <p>Rootgrubs and Rootworms</p> <p>Best control may be achieved when application is made post-bloom immediately after bees are removed. Applications should target early instar larvae.</p> <p>Willowood Imidacloprid 4SC has not been tested for crop response in tank mixes with other registered fungicides or insecticides. If tank mixing is desired, premix a sample of the Willowood Imidacloprid 4SC and the desired fungicide or insecticide partner at labeled rates and apply to a small area. Evaluate crop response within 48 hours and for at least two weeks prior to utilizing the tank mix on larger acreage. If crop injury results from the premix test, do not apply the tank mix to larger acreage.</p>	

GRAPE-soil treatment

Including: American bunch grape, Muscadine grape and Vinifera grape

Pests Controlled	Rate: Fluid ounces per acre
European fruit lecanium, Leafhoppers/ Sharpshooters, Mealybugs, <i>Phylloxera</i> *	8.0-16.0
Pest/Disease Suppressed	
Grapeleaf skeletonizes Nematodes, Pierce's disease	12.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 30 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI/Acre). <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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. Treat only by 1) chemigation into root-zone through above ground low-pressure drip, trickle, micro-sprinkler, or equivalent equipment; or 2) French plow technique, followed immediately by sufficient irrigation to move the product into the entire root-zone of the plant. Repeated and regular use of Willowood Imidacloprid 4SC over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response. For optimum results, make application(s) between bud-break and the pea-berry stage. Use a total of 14.7 fluid ounces/Acre under any of the following conditions: <ul style="list-style-type: none"> • Where vigorous vine growth is expected; • In warmer growing areas; • Where mealybug and European fruit lecanium populations are expected to be heavy; • Where vine populations exceed 600 per acre, or; • For suppression of nematodes. * Repeated and regular use of Willowood Imidacloprid 4SC over several, consecutive growing seasons controls existing <i>Phylloxera</i> infestations over time or prevents <i>Phylloxera</i> from becoming established. 	

GRAPE-foliar treatment

Including: American bunch grape, Muscadine grape and Vinifera grape

Pests Controlled	Rate: Fluid ounces per acre
Leafhoppers/Sharpshooters, Mealybugs	1.2-1.6
Grapeleaf skeletonizer	1.5-1.6
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 days • Minimum interval between applications: 14 days • Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 3.2 fluid ounces/Acre (0.1 lb AI/Acre). Willowood Imidacloprid 4SC may be applied by ground application only. <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.</p>	

HOP¹-soil treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids	9.6
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 60 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 9.6 fluid ounces/Acre (0.3 lb AI/Acre). <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • 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. • Higher dosage is recommended where extended residual control is desired or for treating larger vines or vines with dense foliage volume. 	

HOP-foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids	3.2
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 28 days • Minimum interval between applications: 21 days • Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 9.6 fluid ounces/Acre (0.3 lb AI/Acre). <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.</p>	

POME FRUIT-soil treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids (including woolly apple aphid), Leafhoppers	8.0-12.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI/Acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Applications: Apply specified dosage in the following method:</p> <ul style="list-style-type: none"> • Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. 	

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POME FRUIT-foliar treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Leafhoppers	1.6-3.2
Aphids (except Woolly apple aphid), Apple maggot, Leafminers, San Jose scale	3.2
FOR PEAR ONLY: Mealybugs, Pear psylla	8
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 10 days • Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 16 fluid ounces per acre (0.5 lb AI/Acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Applications: Combine applications targeting apple maggot with manufacturer's rate of a sticker, such as Nu-Film 17. Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.</p>	

POMEGRANATE¹ - soil treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers/Sharpshooters, Whiteflies	8.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI per acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified dosage in the following method:</p> <ul style="list-style-type: none"> • Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. 	

POMEGRANATE¹ - foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers/Sharpshooters, Whiteflies	3.2
Pests Suppressed	
Scales	3.2

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 9.6 fluid ounces per acre (0.5 lb AI per acre).
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

¹ Use not permitted in California unless otherwise directed by supplemental labeling.

Applications:

Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.

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STONE FRUIT-soil treatment

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

In-field, Soil Application	
Pests Controlled	Rate: Fluid ounces per acre
Aphids (including Woolly apple aphid), Leafhoppers	8.0-12.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 12.0 fluid ounces/Acre (0.38 lb AI/Acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Applications: Apply specified dosage in the following method:</p> <ul style="list-style-type: none"> • Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. 	
Pre-plant, Root Dip Application	
Pests Controlled	Rate: Fluid ounces per 10 gallons root-dip solution
Black peach aphid (infesting roots)	1.0
<p>Mix Willowood Imidacloprid 4SC at 1.0 fluid ounce per 10 gallons of water. Thoroughly wet bare-root transplant to slightly above the graft union by soaking roots in the Willowood Imidacloprid 4SC solution for up to 5 minutes. Allow solution to dry on roots and transplant trees as soon as possible following treatment.</p>	

STONE FRUIT-foliar treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Green June beetle, Japanese beetle, Leafhoppers/Sharpshooters, Plant bugs, Rose chafer, San Jose scale	1.6-3.2
Cherry fruit fly	2.4-3.2
Pests Suppressed	
Plum curculio, Stink bugs	3.2
<p>Restrictions for Apricot, Nectarine, Peach:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 day • Minimum interval between applications: 7 days • Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 9.6 fluid ounces/Acre (0.3 lb AI/Acre). • Minimum application volume (water): 50 GPA - ground application, 25 GPA aerial application. • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Restrictions for Cherries, Plums, Plumcot, Prune:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 10 days • Maximum Willowood Imidacloprid 4SC allowed per season when making foliar applications: 16.0 fluid ounces/Acre (0.5 lb AI/Acre). • Minimum application volume (water): 50 GPA - ground application, 25 GPA-aerial application. • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.</p>	

TREE NUTS¹-soil treatment

Crops of Crop 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, Termites, Whiteflies	8.0-16.0
Pests/Diseases Suppressed	
Pecan scab (from reduction in honeydew deposition)	8.0-16.0
Thrips (foliage-feeding thrips only)	16.0

Restrictions:

- **Pre-Harvest Interval (PHI): 7 days**
- Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI/Acre).
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

¹ Use not permitted in California unless otherwise directed by supplemental labeling, except Pecan.

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

- For pecans, applications can be made from May 15 up to July 15. Applications made later in the season may result in reduced efficacy.
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent irrigation equipment. Pre-wet soil prior to applications of Willowood Imidacloprid 4SC 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 product in a minimum of 10 gallons per acre using multiple shanks on both sides of trees. Ensure product placement is below sod or orchard floor debris. Irrigate entire treated area 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. Utilize 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 prior to applying any irrigation.

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

TREE NUTS¹-foliar treatment

Crops of Crop 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	1.4-2.8
Black pecan aphid, Mealybugs, San Jose scale	3.2

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 6 days
- Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 11.5 fluid ounces/Acre (0.36 lb AI/Acre).
- Minimum application volume (water): 50 GPA - ground application, 25 GPA -aerial application.
- Do not apply pre-bloom or during bloom or when bees are actively foraging.

¹ Use not permitted in California unless otherwise directed by supplemental labeling.

Applications: Time applications for the control of San Jose scale according to crawler stage, treating each successive generation. Two applications on a 10- to 14-day interval may be required to achieve control.

Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knock down established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.

TROPICAL FRUIT - soil treatment

Including: Acerola, Atemoya \ Avocado, Birida \ Black sapote, Canistel, Cheri-moya \ Custard apple \ Feijoa, Jaboticaba, Guava, Llama \ Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop \ Spanish lime, Star apple, Starfruit, Sugar apple¹, Wax jambu

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Avocado lacebug, Leafhoppers, Whiteflies	12.0-16.0
Pests Suppressed	
Scales, Thrips (foliage feeding thrips only)	16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 6 days • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI/A). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified dosage in the following method:</p> <ul style="list-style-type: none"> • Chemigation through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. 	

TROPICAL FRUIT - foliar treatment

Including: Acerola, Atemoya \ Avocado, Birida \ Black sapote, Canistel, Cherimoya \ Custard apple \ Feijoa, Jaboticaba, Guava, Llama \ Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop¹, Spanish lime, Star apple, Starfruit, Sugar apple¹, Wax jambu

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers/Sharpshooters, Mealybugs, Thrips (foliage feeding thrips only), Whiteflies	3.2
Pests Suppressed	
Scales	3.2
<p>Restrictions:</p> <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 10 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 16.0 fluid ounces per acre (0.5 lb AI/A). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or from improved control of other pests. Aerial application of Willowood Imidacloprid 4SC may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines. Crops contained within certain crop groups recognized by EPA are subject to change. Refer to EPA website (www.epa.gov) for latest crop groups.</p>	

OTHER CROPS

CHRISTMAS TREE¹-soil treatment

Pests Controlled	Rate: Fluid ounces per acre
White grub complex (damage from grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental beetle)	8.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Maximum Willowood Imidacloprid 4SC allowed per season when making soil applications: 16.0 fluid ounces/Acre (0.5 lb AI/Acre). ¹ Use not permitted in California unless otherwise directed by supplemental labeling. <p>Applications: Soil incorporation and movement of Willowood Imidacloprid 4SC to the root-zone is required for activity. Willowood Imidacloprid 4SC can be incorporated most readily when applied to moist soil. Apply specified dosage in one of the following methods:</p> <ul style="list-style-type: none"> • Chemigation into root-zone 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 after application. • For optimal grub control, apply Willowood Imidacloprid 4SC during adult flight activity, or up to mid-July, when 1st instar larvae are present. 	

CHRISTMAS TREE-foliar treatment

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Adelgids, Sawflies	1.6-3.2
<p>Restrictions:</p> <ul style="list-style-type: none"> • Minimum interval between applications: 7 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 16.0 fluid ounces/Acre (0.5 lb AI/Acre). <p>Applications: Gall-forming adelgids-time applications to coincide with full bud-swell of earliest bud-breaking trees. Once galls form spraying will be ineffective. Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p>	

POPLAR/COTTONWOOD¹ - soil treatment
 (includes members of the genus *Populus* grown for pulp or timber)

Field Application Instructions. See details below for Cuttings/Whips Application instructions.	
Pests Controlled	Rate: Fluid ounces per acre
Aphids, Cottonwood leaf beetle	8.0-16.0
Pests Suppressed	
<i>Phylloxera popularia</i>	8.0-16.0
<p>Restrictions:</p> <ul style="list-style-type: none"> • Maximum Willowood Imidacloprid 4SC allowed at-plant per crop season: 16.0 fluid ounces/Acre (0.5 lb AI/Acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>Applications: Apply specified dosage in the following method:</p> <ul style="list-style-type: none"> • 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, use 0.25 inches/Acre). <p>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.</p> <p>For <i>Phylloxera</i>, apply early in the year from break of dormancy through May.</p>	

POPLAR/COTTONWOOD¹ - soil treatment (continued)
 (includes members of the genus *Populus* grown for pulp or timber)

Cutting/Whip Application Instructions. See details above for Field Application Instructions.	
Pests Controlled	Cutting/Whip Soaking Solution Fluid ounces Willowood Imidacloprid 4SC Needed per 100 gallons
Cottonwood leaf beetle	6.6-13.3 (unhydrated cuttings/whips) 13.3-20.0 (partially hydrated cuttings/whips)
Pests Suppressed	
Aphids, <i>Phylloxera popularia</i>	6.6 -13.3 (unhydrated cuttings/whips) 13.3-20.0 (partially hydrated cuttings/whips)

Restrictions:

- Maximum Willowood Imidacloprid 4SC allowed at-plant per crop season: 16.0 fluid ounces/Acre (0.5 lb AI/Acre).

¹ Use not permitted in California unless otherwise directed by supplemental labeling.

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

Apply Willowood Imidacloprid 4SC in one of the following cuttings/whips soaking methods:

- For freshly cut (unhydrated) cuttings/whips, soak plant material in specified 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 must 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.

POPLAR/COTTONWOOD¹ - foliar treatment

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

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leaf beetles	1.6-3.2
<p>Restrictions:</p> <ul style="list-style-type: none"> • Minimum interval between applications: 10 days • Maximum Willowood Imidacloprid 4SC allowed per crop season when making foliar applications: 16 fluid ounces per acre (0.5 lb AI per acre). • Do not apply pre-bloom or during bloom or when bees are actively foraging. <p>¹ Use not permitted in California unless otherwise directed by supplemental labeling.</p> <p>Applications: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimum control. A spray adjuvant may be used to improve coverage. Willowood Imidacloprid 4SC may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. Willowood Imidacloprid 4SC may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.</p>	

Darkling Beetle and Hide Beetle Control in Poultry Facilities

Use WILLOWOOD IMIDACLOPRID 4SC as a surface, spot, or crack and crevice treatment to floors, walls, and support beams of poultry facilities. WILLOWOOD IMIDACLOPRID 4SC may be applied within 25 feet around the perimeter of the poultry house. **DO NOT APPLY WHEN BIRDS ARE PRESENT.** Cover or remove exposed feed and water from the area to be treated. Allow treated surfaces to dry before restocking/reintroducing birds into the facility.

MIXING AND APPLICATION INSTRUCTIONS AND RATES:

- 1) Determine the area (number of square feet) to be treated. Refer to the Mixing Table below for the amount of WILLOWOOD IMIDACLOPRID 4SC to be used.
- 2) Mix the required amount of WILLOWOOD IMIDACLOPRID 4SC with the appropriate amount of water and apply as a spray. Fill the sprayer tank with ½ of the water desired for the treatment.
- 3) Begin agitating the water and add the required amount of product to the tank.
- 4) Continue mixing and add the remaining water. Maintain sufficient agitation during product application to ensure a uniform spray.
- 5) Prepare a fresh spray mixture before each treatment.

MIXING TABLE FOR WILLOWOOD IMIDACLOPRID 4SC

Pests to Control	WILLOWOOD IMIDACLOPRID 4SC Per 1,000 Feet ²	Gallons of Water Per 1,000 Feet ²
Darkling Beetles & Hide Beetles	3 fl. oz.* (90 mL*)	½ - 2 gallons

*Equivalent to 45 grams of imidacloprid a.i./1,000 ft.²

CONVERSION KEY: 128 fl. oz. = 1 gal., 16 fl. oz. = 1 pint, 8 pints = 1 gal., 1 fl. oz. = 29.5 mL

APPLICATION TIMING

Apply between flocks, following de-caking/sanitation procedures.

APPLICATION INSTRUCTIONS

Band Application: When darkling beetles are concentrated in certain areas, such as under feed or water lines, or along the perimeter walls, it may not be necessary to treat the entire poultry house. In these situations, certain portions of the house or "bands" may be treated. For example, apply diluted WILLOWOOD IMIDACLOPRID 4SC to a 3-foot wide band of litter under all of the feed and/or water lines in the house; a 3-foot wide band of litter adjacent to the side and end walks; and the lower section of the walls, including 1 foot up onto wood surfaces above the foundation. Be sure to measure the actual area (square feet) to be treated in order to determine the amount of WILLOWOOD IMIDACLOPRID 4SC needed for the application.

Whole House Application: When darkling beetle infestation is severe, the entire house may need to be treated. Apply diluted WILLOWOOD IMIDACLOPRID 4SC as a broadcast spray to the litter covering the entire floor area, especially to litter under feed and water lines, as well as to the lower sections of walls, including 1 foot up onto wood surfaces above the concrete foundation.

In houses with support beams, treat the litter surface around each support post and 1 foot up each post. Also apply diluted spray to cracks and crevices around wall insulation, where beetles have been seen or can find harborage.

RESISTANCE MANAGEMENT

Darkling beetles, like all insects, have the ability to develop resistance to insecticides. When a single chemical class is used continuously this increases the likelihood that resistance to that chemical class will develop. WILLOWOOD IMIDACLOPRID 4SC contains imidacloprid, which belongs to the class of chloronicotinyl insecticides. WILLOWOOD IMIDACLOPRID 4SC should be used in an insecticide rotation program with other classes of insecticides including pyrethroids, organophosphates, and spinosyns to prevent resistance and preserve the product's effectiveness for darkling beetle control.

- Read and follow all label directions when using WILLOWOOD IMIDACLOPRID 4SC or any other insecticide.
- Do not use WILLOWOOD IMIDACLOPRID 4SC or any other insecticide product at lower than the specified label rate. This exposes the insects to a sub-lethal dose and increases the development of resistance.
- Use integrated Pest Management (IPM) strategies in addition to insecticide treatments to manage darkling beetle population.

When pest exclusion at possible entry points is desired, supplement WILLOWOOD IMIDACLOPRID 4SC treatments with targeted applications of pyrethroid insecticides to the building perimeter, foundation, doors, and windows, utility entry points, and other places where pests may enter the structure. Read and follow all label directions for use of other products.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place, out of direct sunlight, and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

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: Nonrefillable container (equal to or less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable container (greater than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ 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 20 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully.

However, it is impossible to eliminate all risks associated with the 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 Willowood LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, WILLOWOOD LLC MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. To the extent consistent with applicable law, no agent of Willowood LLC is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, WILLOWOOD LLC DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT WILLOWOOD LLC'S ELECTION, THE REPLACEMENT OF PRODUCT.