

228-527

9/28/2007

10927



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

SEP 28 2007

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. George Meindl
Registration Manager
Nufarm Americas Inc.
150 Harvester Drive Suite 200
Burr Ridge, Il 60527

Re: Change Primary Brand Name to Nuprid® 4.6F Pro Insecticide
EPA Reg. No.: 228-527
Date of Submission: September 21, 2007

Dear Mr. Meindl:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated September 21, 2007, for the product Nuprid® 4.6F Insecticide. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

A handwritten signature in cursive script, appearing to read "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

816

20927

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
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Application for Pesticide - Section I

1. Company/Product Number 228-527	2. EPA Product Manager Venus Eagle	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Nuprid 4.6F Pro Insecticide	PM# 1	
5. Name and Address of Applicant (Include ZIP Code) Nufarm Americas, Inc. 150 Harvester Drive Suite 200 Burr Ridge, IL 60527 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

Section - II

<input type="checkbox"/> Amendment - Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Other - Explain below.
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NOTIFICATION
SEP 28 2007

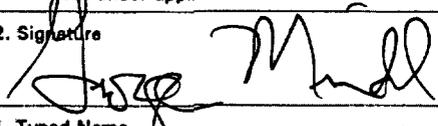
Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Label notification consistent with PRN98-10, see cover letter for detailed explanation. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make false statements to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:					
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph Paper glued Stenciled <input type="checkbox"/> Other _____					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name George Meindl george.meindl@us.nufarm.com	Title Registration Manager	Telephone No. (Include Area Code) 630.455.2017
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Registration Manager	
4. Typed Name George Meindl	5. Date 9/21/2007	

30921



Nufarm Americas, Inc.
George Meindl
Registration Manager
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527
Phone: 630.455-2017 Fax: 630.455.2030
george.meindl@us.nufarm.com

September 21, 2007

Via Overnight Courier

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

Subject: Nuprid® 4.6F Insecticide
EPA Reg. No. 228-527
Change primary brand name to
Nuprid ® 4.6F Pro Insecticide

Dear Ms. Hobgood:

Nufarm Americas Inc. would like to make a change to the primary brand name for the subject registration. We would like the primary brand name for the subject registration to be: Nuprid 4.6F Pro Insecticide. We feel that this label change is permitted and consistent with PRN98-10 section II (Labeling notifications) part A (Changing primary brand name). The new primary brand name is not false and misleading.

To process this request please find enclosed the following:

- Application for Pesticide Registration (EPA form 8570-1)
- Final print labeling with new primary brand name (1 copy)

If you should have any questions regarding this matter, please feel free to contact me at 630.455.2017 or email at george.meindl@us.nufarm.com.

Sincerely,

George Meindl
Registration Manager
Nufarm Americas, Inc.

Handwritten notes and markings on the right side of the page, including several sets of small circles and lines.

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NOTIFICATION

SEP 28 2007

GROUP 4A INSECTICIDE

NUPRID™ 4.6F PRO INSECTICIDE

FOR USES IN PEST MANAGEMENT AND SUPPRESSION OF INSECT
VECTORED DISEASES AND MAINTENANCE OF PLANT HEALTH.

ACTIVE INGREDIENT:

Imidacloprid, 1[[6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine..... 45.2%

OTHER INGREDIENTS: 54.8%

TOTAL: 100.0%

Contains 4.6 pounds of imidacloprid per gallon.

SHAKE WELL BEFORE USING

**KEEP OUT OF REACH OF CHILDREN
CAUTION**
SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840

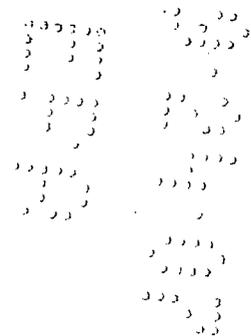
EPA REG. NO. 228-527
EPA EST. NO.

MANUFACTURED FOR
NUFARM AMERICAS INC.
BURR RIDGE, IL 60527



NET CONTENTS: GALS.

000228-00527.20070907.ABN
NUP-06215



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

Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Avoid contact with eyes or clothing. [Wear protective eye wear.] Wear long sleeved shirt and long pants, socks, shoes, and chemical resistant gloves made of waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton.

FIRST AID	
IF INHALED	<ul style="list-style-type: none"> • Move the person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF 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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 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.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
No specific antidote is available. Treat the patient symptomatically.	

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 STATEMENTS

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

USER SAFETY RECOMMENDATIONS
<p>Users Should:</p> <ul style="list-style-type: none"> • Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. • Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, 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 groundwater contamination.

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

SPRAY DRIFT MANAGEMENT

The responsibility of avoiding spray drift is with the applicator. The applicator should consider weather related factors and the interaction of application equipment when making application decisions.

Importance of Droplet Size:

The droplet size is an important factor and can influence drift. Typically smaller droplet sizes, such as less than 150 to 200 microns, have a greater tenancy to drift compared to larger droplets. Applications typically should be made to deliver the largest droplet range that provides adequate control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection.

Wind Speed Restrictions:

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions.

Restrictions During Temperature Inversions:

Do not make ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions typically restrict vertical air mixing, which then could cause small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions typically 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

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

No-Spray Zone Requirements for Soil Applications

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

Runoff Management

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When using this product on erodible soils, Best Management Practices for minimizing runoff should be employed.

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.

This product contains a Group 4A insecticide. Insect biotypes with acquired or inherent resistance to Group 4A may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species.

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

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

Examples of other Group 4A, neonicotinoid products used as soil treatments include: Admire, Admire Pro, Advise, Alias, Couraze, Cruiser, Gaucho, Macho, Macho Max, Platinum, Venom and Widow.

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

Do not enter or allow 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 Recommendations

Applications of this product should direct active ingredient into the seed or root-zone of crop. Failure to place this product into root-zone may result in loss of control or delay in onset of activity. This product may be applied with ground or chemigation application. Do not apply with aerial application equipment. Broadcast, foliar applications are only recommended to seedling flats or trays, or where product is intended to be washed from foliage to soil prior to drying on foliage.

Optimum activity results from applications to the root-zone of plants to be protected. The earlier this product is available to a developing plant, the earlier the protection begins. This product is continuously taken into the roots over a long period of time and the systemic nature of this product allows movement from roots through the xylem tissue to all vegetative parts of the plant. This results in extended residual activity, the control of insects and the prevention and/or reduction of virus transmission or symptom expression, and plant health benefits. The rate applied affects the length of the plant protection period. Higher rates are recommended when infestations occur later in crop development, or where pest pressure is continuous. This product 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.

Suppression, or less than complete control of certain diseases and insect pests including reduced feeding may also result from applications of this product. Complete control of these pests/diseases may require supplemental control measures.

Use of this product on crops grown for production of true seed intended for private or commercial planting is generally not recommended. As with any insecticide, care should be taken to minimize exposure of this product to honey bees and other pollinators. Additional information on uses of this product for these crops and other questions, may be obtained from the Cooperative Extension Service, PCAs or local Nufarm representatives.

This product should be pre-mixed with water or other appropriate diluent prior to application. Keep this product and water suspension agitated to avoid settling.

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

Mixing Instructions

This product is a suspension concentrate (flowable) formulation with unique qualities and should be shaken well before measuring or mixing. To prepare the application mixture, add a portion of the required amount of water to the tank and with agitation then add this product. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. This product has demonstrated easy mixing and blooming in water with varying degrees of hardness and temperature. This product has demonstrated good mixing and compatibility with many fluid fertilizers without dilution with water. However because fertilizers vary widely in quality and composition it is suggested that a jar test be performed prior to full scale mixing. Please see Compatibility Note below.

To prepare the application mixture add a portion of the required amount of water and/or fertilizer to the tank with agitation and then add this product. Complete filling the tank with the balance of water and/or fertilizer as needed. Maintain sufficient agitation during both mixing and application. **Please see Compatibility Note below.** When tank mixtures of this product and other pesticides are involved, prepare the tank mixture as recommended above and follow suggested Mixing Order below.

Mixing Order

When pesticide mixtures are needed, add wettable powders first, then this product and other flowable (suspension concentrate) 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 Note

Test compatibility of the intended mixture before adding this product 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. Poor mixing or formation of precipitates that do not readily redispense indicates an incompatible mixture that should not be used. For further information, contact your local Nufarm representative.

CHEMIGATION - DIRECTIONS FOR USE

Types of Irrigation Systems

Chemigation applications of this product may only be made to crops through chemigation systems as specified in crop-specific application sections and only through low-pressure systems unless specifically recommended for a given crop. Do not apply this product through any other type of irrigation system.

Uniform Water Distribution and System Calibration

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

Chemigation Monitoring

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

Drift

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

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 system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional 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 should be observed.
IMMEDIATE PLANT-BACK: All crops on this label plus the following crops not on this label: barley, canola, corn (field, pop & sweet), rapeseed, sorghum, sugar beet and wheat.
30-DAY PLANT-BACK: Cereals (including buckwheat, millet, oats, rice, rye, and triticale), soybeans and safflower
12-MONTH PLANT-BACK: All Other Crops
10-MONTH PLANT-BACK: Onion and bulb vegetables
* Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

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**FIELD CROPS
Recommended Applications**

COTTON

Pests Controlled	Rate fluid ounces/Acre
Cotton aphid Plant bugs Thrips Whiteflies	7.4 to 9.2 (Depending on row-spacing)
<p>Notes and Restrictions: Maximum amount allowed per crop season: 9.2 fluid ounces/Acre (0.33 lb. AI/Acre)</p> <p>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 this product. Please see Resistance Management section of this label.</p> <p>Applications: Apply specified dosage in one of the following methods: 1. In-furrow spray during planting directed on or below seed; 2. In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting; 3. Chemigation into root-zone through low-pressure drip or trickle irrigation.</p>	

POTATO

Pests Controlled	Rate fluid ounces/Acre
Aphids Colorado potato beetle Flea beetles Leafhoppers Potato psyllid	5.7 to 8.7
Pests / Diseases Suppressed	
Symptoms of: Potato leaf roll virus (PLRV) Potato yellows Net necrosis (PLRV) Wireworms (with in-furrow spray at-planting)	5.7 to 8.7
<p>Notes and Restrictions: Maximum amount allowed per crop season: 8.7 fluid ounces/Acre (0.31 lb. AI/Acre)</p> <p>Applications: Apply specified dosage in one of the following methods: 1. In-furrow spray during planting directed on seed pieces or seed potatoes; 2. Subsurface side-dress on both sides of the row covered with 3 or more inches of soil; 3. Narrow band spray at ground cracking directly over the row during hilling covered with 3 or more inches of soil; 4. Narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting. For effective pest control or suppression, applications of this product 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 this product may be made in a 2 to 4 inch band (width of planter shoe opening) and completely covered.</p>	

**POTATO
(Seed Piece Treatment)**

Pests Controlled	Rate fluid ounces/100 lbs seed	Rate* fluid ounces/Acre
Aphids Colorado potato beetle Flea beetles Leafhoppers Potato psyllid Wireworms (seed piece protection)	0.17 to 0.35	3.5 to 7.0
Pests / Diseases Suppressed		
Symptoms of: Potato leaf roll virus (PLRV) Potato yellows Net necrosis (PLRV)	0.35	7.0
<p>Notes and Restrictions: Maximum amount allowed per crop season: 8.7 fluid ounces/Acre (0.31 lb. AI/Acre) Do not use treated seed-pieces for food, feed, or fodder. Do not apply any subsequent application of this product (in-furrow), Admire Pro®, Leverage® or Provado® following a seed-piece treatment of this product.</p> <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 this product. Agitate or stir spray solution as needed. Fungicidal or inert absorbent dusts may be applied after this product's 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 seed pieces treated with this product to sunlight and in accordance with the recommendation of your local Extension specialist.</p> <p>Consult your local Nufarm representative or crop protection product dealer for information relevant to your area. * Based on a seeding rate of 2,000 lbs./acre.</p>		

TOBACCO

Pests Controlled	Rate fluid ounces/1,000 plants (as seedling tray drench)	Rate fluid ounces/1,000 plants (in-furrow or transplant-water)
Aphids Flea beetles	0.5	0.6
Mole crickets Whiteflies Wireworms	0.6 to 1.2	0.8 to 1.2
Pests / Diseases Suppressed		
Cutworms Symptoms of: Tomato spotted wilt virus (TSWV)	0.6 to 1.2	0.8 to 1.2
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 14 days Maximum amount allowed per crop season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre)</p> <p>Applications: Apply specified dosage of this product in one of the following methods: 1. 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 this product from foliage into potting media. Failure to wash this product from foliage may result in a reduction in pest control. Transplants should be handled carefully during setting to avoid dislodging treated potting media from roots. 2. In-furrow spray or transplant-water drench during setting. 3. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.</p> <p>Important Note: Proper tray drench applications of this product have been shown to be the most efficacious method of application. However, the specified rate of this product 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 this product into the plant and a delay in control.</p>		

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VEGETABLE and SMALL FRUIT CROPS
Recommended Applications

CUCURBIT VEGETABLES^{1/}

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 recommendations. See details on next page for additional planthouse recommendations.	
Pests Controlled	Rate fluid ounces/Acre
Aphids Cucumber beetles Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	7.0 to 10.5
Pests / Diseases Suppressed	
Bacterial wilt (as vectored by various cucumber beetles) Leaf silvering resulting from whitefly feeding	7.0 to 10.5
Notes and Restrictions: Pre-Harvest Interval (PHI): 21 days Maximum amount allowed per application: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre)	
Applications: Apply specified dosage of this product in one of the following methods: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. In-furrow spray directed on or below seed; 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1.5" with sufficient irrigation within 24 hours of application; 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting; 5. Post-seeding drench, transplant-water drench, or hill drench; 6. Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone.	
Planthouse Application Recommendations*	
Pests Controlled	Rate fluid ounces/10,000 plants
Aphids Whiteflies	0.44
Notes and Restrictions: Maximum amount applied in the planthouse: 0.44 fluid ounces (0.00156 lb. AI)/10,000 plants. Maximum number of applications in planthouse: 1	
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: 1. Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash this product from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash this product from foliage may result in reduced pest control; 2. 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 is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants should be handled carefully during setting to avoid dislodging treated potting media from roots.	
Important Note: Not all varieties of cucurbit vegetables have been tested for tolerance to this product applied to seedling flats. It is therefore recommended to treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.	
^{1/} Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.	
* Use not permitted in CA unless otherwise directed by supplemental labeling.	

GREENHOUSE VEGETABLES ^{1/}

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

Pests Controlled	Rate fluid ounces/1,000 plants
Aphids Whiteflies	0.6
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 0 days Maximum number of applications per crop season: 1. Apply specified dosage in a minimum of 16 gallons of water for tomatoes and 21 gallons of water for cucumbers using soil drenches, micro-irrigation, drip irrigation, or hand-held or motorized calibrated irrigation equipment. Do not apply to immature plants since phytotoxicity may occur. Applications should be made 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>Orius</i> sp.) can occur when this product is applied. Many varieties of vegetables have been tested for tolerance to this product and show good safety. However, certain varieties may show more sensitivity to this product. Therefore, treatment of a few plants is recommended before treating the whole greenhouse. ^{1/} Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p>	

FRUITING VEGETABLES ^{1/}

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 recommendations. See details that follow for additional planthouse recommendations.	
Pests Controlled	Rate fluid ounces/Acre
Aphids Colorado potato beetle Flea beetles Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	Okra and Pepper 7.0 to 14.0 Other Crops 7.0 to 10.5
Pests / Diseases Suppressed	
Symptoms of: Tomato mottle virus Tomato spotted wilt virus Tomato yellow leaf curl virus	Okra and Pepper 7.0 to 14.0 Other Crops 7.0 to 10.5
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 21 days Maximum amount allowed on pepper and okra crops per application: 14.0 fluid ounces/Acre (0.5 lb. AI/Acre) Maximum amount allowed on other fruiting vegetable crops per application: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre) Applications: Apply specified dosage of this product in one of the following methods: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. In-furrow spray directed on or below seed; 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1-1/2" with sufficient irrigation within 24 hours of application; 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting; 5. Post-seeding drench, transplant-water drench, or hill drench; 6. Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone.</p>	

FRUITING VEGETABLES ^{1/} (continued)

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

Planthouse Application Recommendations*	
Pests Controlled	Rate fluid ounces/10,000 plants
Aphids Whiteflies	0.44
<p>Notes and Restrictions: Maximum amount applied in the planthouse: 0.44 fluid ounces (0.00156 lb AI)/10,000 plants. Maximum number of applications in planthouse: 1</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 manners:</p> <ol style="list-style-type: none"> 1. Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash this product from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash this product from foliage may result in reduced pest control; 2. Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray. <p>The application made in the planthouse is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants should be handled carefully during setting to avoid dislodging treated potting media from roots.</p> <p>Important Note: Not all varieties of fruiting vegetables have been tested for tolerance to this product applied to seedling flats. It is therefore recommended to treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.</p> <p>^{1/} Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p> <p>* Use not permitted in CA unless otherwise directed by supplemental labeling.</p>	

HERBS ^{1/}

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

Pests Controlled	Rate fluid ounces/Acre
Aphids Flea Beetles Leafhoppers Whiteflies	7.0 to 10.5
Pests Suppressed	
Thrips (foliage-feeding thrips only)	7.0 to 10.5
<p>Notes and Restrictions Pre-Harvest Interval (PHI): 14 days Maximum amount allowed per season: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre)</p> <p>Applications Apply specified dosage in one of the following methods:</p> <ol style="list-style-type: none"> 1. In-furrow spray during planting directed on or below seed; 2. In-furrow spray or transplant-water drench during setting or transplanting; 3. Shanked-into or below eventual seed-line; 4. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. <p>Notes Not all crops and/or varieties listed above have been tested for phytotoxic effects. Without specific knowledge about a particular crop and variety, Nufarm strongly recommends that only small areas or numbers of plants of each be treated and evaluated prior to commercial use.</p> <p>^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.</p>	

HEAD and STEM BRASSICA VEGETABLES ^{1/}

Crops of Crop Group 5 including: Broccoli, Broccoli raab (*rapini*), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccoli, Chinese (*gai lon*) 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)

LEAFY VEGETABLES ^{1/}

Crops of Crop Subgroup 4A plus Watercress including: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), 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), Raddicchio (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/Acre
Aphids Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	4.4 to 10.5
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 21 days Maximum amount allowed per application: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre)</p> <p>Applications: Apply specified dosage of this product in one of the following methods:</p> <ol style="list-style-type: none"> 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. In-furrow spray directed on or below seed; 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1.5" with sufficient irrigation within 24 hours of application; 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting; 5. Post-seeding drench, transplant-water drench, or hill drench; 6. Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone. <p>^{1/} Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p>	

LEAFY PETIOLE VEGETABLES ^{1/}

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/Acre
Aphids Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	4.4 to 10.5
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 45 days Maximum amount allowed per application: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre)</p> <p>Applications: Apply specified dosage of this product in one of the following methods:</p> <ol style="list-style-type: none"> 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. In-furrow spray directed on or below seed; 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1.5" with sufficient irrigation within 24 hours of application; 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting; 5. Post-seeding drench, transplant-water drench, or hill drench; 6. Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone. <p>^{1/} Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p>	

LEGUME VEGETABLES ^{1/} except soybean, dry

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)

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Bean (*Vigna* spp., includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean), Pea (*Pisum* spp., includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea)
 Other Beans and Peas [Broad bean (fava), Chickpea (garbanzo bean), Guar, Jackbean, Lablab bean (hyacinth bean), Lentil, Pigeon pea, Soybean (immature seed), Sword bean]

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	7.0 to 10.5
Pests / Diseases Suppressed	
Symptoms of: Bean common mosaic virus (BCMV) Bean golden mosaic virus (BGMV) Beet curly top hybrigeminivirus (BCTV)	7.0 to 10.5
Notes and Restrictions: Pre-Harvest Interval (PHI): 21 days Maximum amount allowed per crop season: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre) Applications: Apply specified dosage of this product in one of the following methods: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. In-furrow spray at planting directed on or below seed; 3. In a narrow (2" or less) surface band over seed-line during planting incorporated to a depth of 1 to 1.5" with sufficient irrigation within 24 hours following application; 4. In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting; 5. As a post-seeding drench, transplant drench, or hill drench. 1/ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.	

ROOT VEGETABLES 1/

Crops of Crop Subgroup 1B except Sugarbeet including: Beet (garden)^{2/}, Burdock (edible)^{2/}, Carrot^{2/}, Celeriac^{2/}, Chervil (turnip-rooted)^{2/}, Chicory^{2/}, Ginseng, Horseradish, Parsley (turnip-rooted), Parsnip^{2/}, Radish^{2/}, Oriental radish (diakon)^{2/}, Rutabaga^{2/}, Salsify (oyster plant), Salsify (black)^{2/}, Salsify (Spanish), Skirret and Turnip^{2/}.

Pests Controlled	Rate fluid ounces/1,000 row-feet	Rate fluid ounces/Acre
Aphids Flea beetles Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	0.31 to 0.74	4.4 to 10.5
Notes and Restrictions: Pre-Harvest Interval (PHI): 21 days Maximum amount allowed per crop season: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre) Maximum number of applications per crop season: 1 Application Apply specified dosage of this product in one of the following methods: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. In-furrow spray (rate specified per 1,000 row-feet) or, shanked-in 1 to 2 inches below seed depth during planting; 3. In a narrow (2 inches or less) band directly (1 to 2 inches) below the eventual seed row in a bedding operation 14 or fewer days before planting. Important Note: The rate applied affects the length of control. Use higher rates where infestations occur later in crop development, or where pest pressure is continuous. Rates of this product less than 0.31 fluid ounces/1,000 row-feet will not provide adequate residual pest control. Crops treated with this product grown on very high organic matter soils (muck) may also require additional pest management control. 1/ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling. 2/ Tops or greens from these crops <u>may</u> be utilized for food or feed.		

TUBEROUS and CORM VEGETABLES ^{1/}

Crops of Crop Subgroup 1C including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter & sweet)^{2/}, Chayote (root), Chufa, Dasheen (taro)^{2/}, Ginger, Leren, Sweetpotato, 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/1,000 row-feet	Rate fluid ounces/Acre
Aphids Flea beetles Leafhoppers Thrips (foliage-feeding thrips only) Whiteflies	0.31 to 0.74	4.4 to 10.5
<p>Notes and Restrictions: Pre-Harvest Interval (PHI) from planting application: 3 days (leaves); 125 days (corms) Maximum amount allowed per crop season: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre) Maximum number of applications per crop season: 1</p> <p>Application Apply specified dosage of this product in one of the following methods:</p> <ol style="list-style-type: none"> In-furrow spray (rate specified per 1,000 row-feet) over planting material (hulis) or shanked-in 1 to 2 inches below hulis depth at planting; Side-dress not more than 0.26 fluid ounces/1,000 row-feet no later than 45 days after-planting. Observe same PHI as above. <p>Important Note: The rate applied affects the length of control. Use higher rates where infestations occur later in crop development, or where pest pressure is continuous. Rates of this product less than 0.31 fluid ounces/1,000 row-feet may not provide adequate residual pest control. Crops treated with this product grown on very high organic matter soils (muck) may also require additional pest management control.</p> <p>^{1/} Not for use on crops grown for seed unless allowed by state-specific supplemental labeling. ^{2/} Tops or greens from these crops <u>may</u> be utilized for food or feed.</p>		

STRAWBERRY ^{1/}

Annual And Perennial Crops	
Pests Controlled	Rate fluid ounces/Acre
Aphids Whiteflies	10.5 to 14.0
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 14 days Maximum amount allowed per crop season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre)</p> <p>Applications Apply specified dosage of this product in one of the following methods:</p> <ol 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 mulch that limit movement of this product into root zone is not recommended. <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>	

STRAWBERRY (continued)	
Post-harvest Use on Perennial Crops	
Pests Controlled	Rate fluid ounces/Acre
White grub complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle, Oriental beetle)	7.0 to 10.5
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 14 days Maximum amount allowed per crop season: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre)</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 this product in one of the following methods: 1. As a ground spray via boom or backpack sprayer in a minimum of 20 gallons of water per acre; 2. 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. The bandwidth should be equivalent to the width of the anticipated fruiting bed; 3. As a chemigation application with 600 to 1,000 gallons of water followed by 0.10 to 0.25 inches irrigation.</p> <p>Important Note: All soil-surface applications must be followed by 0.25 inches of rainfall or overhead irrigation water per acre within 2 hours of application. Failure to adequately incorporate this product into egg-deposition zone may result in decreased activity of beetle grubs.</p> <p>^{1/} Do not use both application methods on the same crop in the same season.</p>	

SUGARBEET ^{1/} (for use only in CA)

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers Whiteflies Flea beetles	2.6 to 5.2
Pests / Diseases Suppressed	
Symptoms of: Western yellows / Beet curly top hybrigeminivirus (BCTV)	2.6 to 5.2
<p>Notes and Restrictions: Maximum amount allowed per crop season: 5.2 fluid ounces/Acre (0.18 lb. AI/Acre) Do not apply immediately prior to bud opening or during bloom or when bees are actively foraging.</p> <p>Applications Apply specified dosage of this product in the following method: 1. 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.</p> <p>^{1/} Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.</p>	

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CONVERSION CHART FOR LINEAR APPLICATION										
RATE fluid ounces/Acre	RATE fluid ounces/1,000 row-feet Based on <u>average</u> row spacing (in inches):									
	10	15	20	25	30	34	36	38	40	45
5.0	0.10	0.14	0.19	0.24	0.29	0.33	0.34	0.36	0.38	0.43
5.5	0.11	0.16	0.21	0.26	0.32	0.36	0.38	0.40	0.42	0.47
6.0	0.11	0.17	0.23	0.29	0.34	0.39	0.41	0.44	0.46	0.52
6.5	0.12	0.19	0.25	0.31	0.37	0.42	0.45	0.47	0.50	0.56
7.0	0.13	0.20	0.27	0.33	0.40	0.46	0.48	0.51	0.54	0.60
7.5	0.14	0.22	0.29	0.36	0.43	0.49	0.52	0.55	0.57	0.65
8.0	0.15	0.23	0.31	0.38	0.46	0.52	0.55	0.58	0.61	0.69
8.5	0.16	0.24	0.33	0.41	0.49	0.55	0.59	0.62	0.65	0.73
9.0	0.17	0.26	0.34	0.43	0.52	0.59	0.62	0.65	0.69	0.77
9.5	0.18	0.27	0.36	0.45	0.55	0.62	0.65	0.69	0.73	0.82
10.0	0.19	0.29	0.38	0.48	0.57	0.65	0.69	0.73	0.77	0.86
10.5	0.20	0.30	0.40	0.50	0.60	0.68	0.72	0.76	0.80	0.90
11.0	0.21	0.32	0.42	0.53	0.63	0.72	0.76	0.80	0.84	0.95
11.5	0.22	0.33	0.44	0.55	0.66	0.75	0.79	0.84	0.88	0.99
12.0	0.23	0.34	0.46	0.57	0.69	0.78	0.83	0.87	0.92	1.03
12.5	0.24	0.36	0.48	0.60	0.72	0.81	0.86	0.91	0.96	1.08
13.0	0.25	0.37	0.50	0.62	0.75	0.85	0.90	0.95	0.99	1.12
13.5	0.26	0.39	0.52	0.65	0.77	0.88	0.93	0.98	1.03	1.16
14.0	0.27	0.40	0.54	0.67	0.80	0.91	0.96	1.02	1.07	1.21

Important Note: The rate of this product applied affects the length of control and to a considerable extent, the degree of control or effect. Row-spacing x product rate combinations in shaded blocks may not provide adequate residual pest control and are not recommended for long-term, residual control. Use higher labelled rates where infestations may occur later in crop development or where pest pressure is continuous. Nufarm offers no warranty for use of this product at rates below 0.31 fluid ounces/1,000 row-feet.

**TREE, BUSH and VINE CROPS
Recommended Applications**

BANANA AND PLANTAIN ^{1/}

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers	7.0 to 14.0
Pests / Diseases Suppressed	
Scales	7.0 to 14.0
Notes and Restrictions:	
Pre-Harvest Interval (PHI): 0 day	
Maximum amount allowed per crop season: 14.0 fluid ounces/Acre (0.5 lb. AI/Acre)	
Applications	
Apply specified dosage of this product in the following method:	
1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.	
^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.	

BUSHBERRY

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

Pests Controlled	Rate fluid ounces/Acre
Japanese beetle (adults, feeding on foliage) White grub complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental beetle)	7.0 to 14.0
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 7 days Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging.</p> <p>Applications: Apply specified dosage of this product in one of the following methods: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. 18-inch band on each side of the row followed with 0.25 inches of irrigation immediately after application. For optimal grub control, apply this product to control 1st 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. Application to grass covered rows, row middles, drive lanes, headlands, and other grassy areas in and around the berry field will control resident grub populations. Applications directed to the root-zone will help protect berry plant roots from grub feeding. Apply this product to moist soil. If necessary, apply one hour of irrigation water immediately before application. To ensure maximum efficacy, 1/2 to 1 inch of irrigation water or rainfall should be applied or received within 24 hours of application of this product to facilitate movement into the soil and into the root-zone.</p>	

CANEBERRY

For use 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/Acre
Aphids Leafhoppers Whitflies	7.0 to 14.0
Rednecked can borer	10.5 to 14.0
Pests / Diseases Suppressed	
Thrips (foliage-feeding thrips only)	7.0 to 14.0
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 7 days Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.5 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging.</p> <p>Soil Application Apply specified dosage in one of the following methods: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. 2. Basal, soil drench in a minimum of 500 gallons solution per acre.</p>	

CITRUS (Containerized)

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), Tangelo, Satsuma mandarin, White sapote (*Casimiroa* spp), and other cultivars and/or hybrids of these.

Pests Controlled	Rate mL/ft ³ container media
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers/Sharpshooters Mealybugs Scales Whiteflies	0.33
Citrus root weevil (larval complex)	0.55 to 1.1
Pests Suppressed	
Citrus thrips (foliage-feeding thrips only)	1.1
Application Determine volume of container and calculate dosage necessary to treat container. Apply calculated dosage of this product per container as a soil drench or through low-pressure drip or trickle irrigation water. Use sufficient carrier volume to ensure thorough uniform distribution throughout the media without loss of gravitational water from the container. For optimal results, treatment should be made 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.	

CITRUS (Field)

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), Tangelo, Satsuma mandarin, White sapote (*Casimiroa* spp), and other cultivars and/or hybrids of these.

Pests Controlled	Rate fluid ounces/Acre
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers/Sharpshooters Mealybugs Scales Termites (FL only) Whiteflies	7.0 to 14.0
Pests / Diseases Suppressed	
Citrus nematode Symptoms of: Citrus tristeza virus (CTV) through vector control Citrus yellows Thrips (foliage feeding thrips only)	14.0
Notes and Restrictions: Pre-Harvest Interval (PHI): 0 day Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre) Applications: Apply specified dosage of this product in one of the following methods: 1. 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 this product. Chemigation application can be made separate to normal irrigation but followed by 10 to 20 minutes of additional watering to move this product into root-zone. Allow 24 hours before initiating subsequent irrigations; 2. Soil surface band spray on both sides of the tree. Bands should overlap at the tree base to create a continuous band within the drip-line area of the tree, to be followed immediately with light sprinkler irrigation sufficient to move the product into the upper portion of the root-zone. This method is suitable for very coarse soils with 0.75% organic matter or less;	
<i>(continued)</i>	

Applications: (continued)

3. 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. Only recommended for trees up to 8 feet tall;
4. 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;
5. For suppression of citrus nematode, apply specific dosage through low pressure chemigation or soil surface 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 this product over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

COFFEE ^{1/}

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers Leafminer	7.0 to 14.0
Pests Suppressed	
Scales	7.0 to 14.0
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 7 days Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.5 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging.</p> <p>Applications: Apply specified dosage in one of the following methods:</p> <ol style="list-style-type: none"> 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. 2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation; 3. Basal, soil drench in sufficient water to insure incorporation into the root-zone followed by irrigation. <p>^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.</p>	

CRANBERRY

Pests Controlled	Rate fluid ounces/Acre
Rootgrubs (Scarabaeidae) Rootworms (Chrysomelidae)	7.0 to 14.0
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 30 days Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging.</p> <p>Applications Apply this product to moist soil. Apply specified dosage of this product in one of the following methods:</p> <ol style="list-style-type: none"> 1. As a soil spray (ground application) directed to the root and crown area using a minimum of 20 gal of water per acre; 2. As a chemigation application with 600 to 1,000 gallons water. <p>Immediately upon application, this product must be incorporated into root-zone by 0.1 to 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 Best control may be achieved when application is made post-bloom immediately after bees are removed. Applications should target early instar larvae.</p> <p>This product 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 this product 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

Including: American bunch grape, Muscadine grape and Vinifera grape

Pests Controlled	Rate fluid ounces/Acre
European fruit lecanium Leafhoppers/Sharpshooters Mealybugs <i>Phylloxera</i> * spp	7.0 to 14.0
Pests / Diseases Suppressed	
Grapeleaf skeletonizer Nematodes Pierce's disease	10.5 to 14.0
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 30 days Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre)</p> <p>Applications Apply specified dosage of this product in one of the following methods:</p> <ol style="list-style-type: none"> 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation; 3. Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation. 4. For suppression of nematodes, apply 14 fluid ounces in a single application or two 7 fluid ounce applications on a 30 to 45 day interval. Treatments should be only by 1) chemigation into root zone through above ground low pressure drip, tickle, 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 this product over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response. <p>For optimum results, make application between bud-break and the pea-berry stage. A total of 14 fluid ounces/acre is recommended under the following conditions:</p> <ol style="list-style-type: none"> 1. Where vigorous vine growth is expected 2. In warmer growing areas 3. Where mealybug and European fruit lecanium populations are expected to be heavy 4. Where vine populations exceed 600 per acre, or; 5. For suppression of nematodes <p>* Repeated and regular use of this product over several, consecutive growing seasons controls existing <i>Phylloxera</i> infestations over time or prevents <i>Phylloxera</i> from becoming established.</p>	

HOP^{1/}

Pests Controlled	Rate fluid ounces/Acre
Aphids	2.8 to 8.4
<p>Notes and Restrictions Pre-Harvest Interval (PHI): 60 days Maximum amount allowed per season: 8.4 fluid ounces/Acre (0.30 lb. AI/Acre)</p> <p>Applications Apply specified dosage of this product in one of the following methods:</p> <ol style="list-style-type: none"> 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation; 3. Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation. <p>Higher dosage is recommended where extended residual control is desired or for treating larger vines or vines with dense foliage volume.</p> <p>^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.</p>	

POME FRUIT

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

Pests Controlled	Rate fluid ounces/Acre
Aphids (including woolly apple aphid) Leafhoppers	7.0 to 10.5
Notes and Restrictions Pre-Harvest Interval (PHI): 21 days Maximum amount allowed per season: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging. Applications Apply specified dosage of this product in the following method: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.	

POMEGRANATE^{1/}

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers/Sharpshooters Whiteflies	7.0 to 14.0
Notes and Restrictions Pre-Harvest Interval (PHI): 0 day Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.5 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging. Applications Apply specified dosage of this product in the following method: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. ^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.	

STONE FRUIT

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/Acre
Aphids (including woolly apple aphid) Leafhoppers	7.0 to 10.5
Notes and Restrictions Pre-Harvest Interval (PHI): 21 days Maximum amount allowed per season: 10.5 fluid ounces/Acre (0.38 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging. Applications Apply specified dosage of this product in the following method: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.	
Pre-plant, Root Dip Application	
Pests Controlled	Rate fluid ounces/10 gallons root-dip solution
Black peach aphid (infesting roots)	0.87
Mix this product at a rate of 0.87 fluid ounces (26ml) per 10 gallons of water. Thoroughly wet bare-root transplant to slightly above the graft union by soaking roots in this product's solution for up to 5 minutes. Allow solution to dry on roots and transplant trees as soon as possible following treatment.	

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TREE NUTS ^{1/}

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/Acre
Aphids Leafhoppers/Sharpshooters Mealybugs Spittlebugs Termites Whiteflies	7.0 to 14.0
Pests / Diseases Suppressed	
Pecan scab (from reduction in honeydew deposition)	7.0 to 14.0
Thrips (foliage-feeding thrips only)	14.0
<p>Notes and Restrictions: Pre-Harvest Interval (PHI): 7 days Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging.</p> <p>Applications Apply specified dosage prior to or at onset of pest infestation in one of the following methods:</p> <ol style="list-style-type: none"> 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. Pre-wet soil prior to applications of this product and allow soil to dry following application and prior to subsequent irrigation; 2. Emitter or spot application in a minimum of 4 fluid ounces of mixture per emitter site; 3. 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. Product should be applied in a minimum of 10 gallons per acre using multiple shanks on both sides of trees. Ensure product placement is below sod or orchard floor debris. Irrigation covering entire treated area should follow within 48 hours to promote uptake by root system. 4. 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 to 24 inches to obtain optimum control. Allow soil to dry following treatment and prior to applying any irrigation. <p>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.</p> <p>^{1/} Use not permitted in California unless otherwise directed by supplemental labeling, except Pecan.</p>	

TROPICAL FRUIT

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

Pests Controlled	Rate fluid ounces/Acre
Aphids Avocado lacebug Leathoppers Whiteflies	10.5 to 14.0
Pests Suppressed	
Scales Thrips (foliage-feeding thrips only)	14.0
<p>Notes and Restrictions Pre-Harvest Interval (PHI): 6 days Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging.</p> <p>Applications Apply specified dosage of this product in the following method: 1. Chemigation through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. ^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.</p>	

CHRISTMAS TREE ^{1/}

Pests Controlled	Rate fluid ounces/Acre
White grub complex (damage from grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and oriental beetle)	7.0 to 14.0
<p>Notes and Restrictions Maximum amount allowed per season: 14.0 fluid ounces/Acre (0.5 lb. AI/Acre)</p> <p>Applications Soil incorporation and movement of this product to the root-zone is required for activity. This product can be incorporated most readily when applied to moist soil. Apply specified dosage in one of the following methods: 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; 2. 18-inch band on each side of the row (small trees) to full broadcast application (large trees) followed by rainfall or 0.25 to 1 inch of irrigation within 12 hours after application. For optimal grub control apply this product during adult flight activity, or up to mid-July, when first instar larvae are present. ^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.</p>	

POPLAR/COTTONWOOD ^{1/}

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

Pests Controlled	Rate fluid ounces/Acre
Aphids Cottonwood leaf beetle	7.0 to 14.0
Pests / Diseases Suppressed	
<i>Phylloxera popularia</i>	7.0 to 14.0
<p>Notes and Restrictions Maximum amount allowed at-plant per crop season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are actively foraging.</p> <p>Applications Apply specified dosage of this product in the following method: 1. Chemigation through low-pressure drip irrigation. 2. For narrow row, cutting orchards/nurseries used for plant propagation, shank into root zone followed by adequate irrigation to promote uptake. Adequate irrigation depends on soil moisture level at application. Under dry conditions 0.25 inches/acre is recommended.</p> <p>For Cottonwood leaf beetle, protection against damage will occur when application is made early-season, when beetles first begin feeding. Larger trees may require earlier treatment as a result of slower uptake. For <i>Phylloxera</i>, apply early in the year, from break of dormancy through May.</p> <p>^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.</p>	

Cutting/Whip Application Recommendations.^{1/} See details above for Field Application Recommendations.

Pests Controlled	Cutting Whip Soaking Solution fluid ounces of this product needed per 100 gallons
Cottonwood leaf beetle	5.8 to 11.6 (unhydrated cuttings/whips) 11.6 to 17.5 (partially hydrated cuttings/whips)
Pests / Diseases Suppressed	
Aphids	5.8 to 11.6 (unhydrated cuttings/whips)
<i>Phylloxera popularia</i>	11.6 to 17.5 (partially hydrated cuttings/whips)
<p>Notes and Restrictions Maximum amount allowed at-plant per crop season: 14.0 fluid ounces/Acre (0.50 lb. AI/Acre)</p> <p>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 <i>Populus</i> sp. clones/varieties/hybrids have been tested for crop safety. Without specific knowledge about a particular <i>Populus</i> sp. clone/variety/hybrid, Nufarm recommends that small numbers of cuttings/whips of each be treated and evaluated prior to commercial use.</p> <p><u>Apply this product in one of the following cuttings/whips soaking methods:</u> For freshly cut (hydrated) 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.</p> <p>Proper care should be taken in disposal of any residual soaking solution. Solution may be applied to existing trees or other registered crops as long as all product label precautions and restrictions are observed.</p> <p>^{1/} Use not permitted in California unless otherwise directed by supplemental labeling.</p>	

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place 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: Triple rinse (or equivalent). Then 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.

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