



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

September 17, 2021

Keeva Shultz
Agent for Rotam Agrochemical Company Ltd.
Rotam Agrochemical Company Ltd.
c/o Wagner Regulatory Associates, Inc.
P.O. Box 640
Hockessin, DE 19707

Subject: Label Amendment – Add Sub-label B for Turf & Non-Crop Use
Product Name: Rotam 4F Insecticide
EPA Registration Number: 83100-21
Application Date: January 5, 2018
Decision Number: 537471

Dear Ms. Shultz:

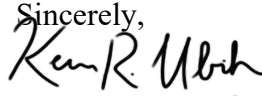
The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This label approval is contingent on the sub-labels being used separately as presented. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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Decision No. 537471

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact please contact Kevin Ulrich by phone at 703-347-0464, or via email at ulrich.kevin@epa.gov.

Sincerely,

for

Venus Eagle, Product Manager 01
Invertebrate and Vertebrate Branch 3
Registration Division (7505P)
Office of Pesticide Programs

Enclosure: Stamped Label

[Note to Reviewer:

Master label for Agricultural, Turf, & Non-Crop Use.

Sub-Label A, pages 2 - 42: Agricultural Use

Sub-Label B, pages 43 - 55: Turf & Non-Crop Use]

IMIDACLOPRID GROUP 4A INSECTICIDE

ROTAM® 4F Insecticide**ACTIVE INGREDIENT:**

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine 40.6%

OTHER INGREDIENTS: 59.4%**TOTAL:** **100.0%**

Contains 4 pounds of imidacloprid per gallon.

SHAKE WELL BEFORE USING**KEEP OUT OF REACH OF CHILDREN
CAUTION**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID (neonicotinoid)	
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.
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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-927-6826 .	
Note To Physician (neonicotinoid): No specific antidote is available. Treat the patient symptomatically.	

[Optional referral statements when booklets and container labels are used:]

[See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

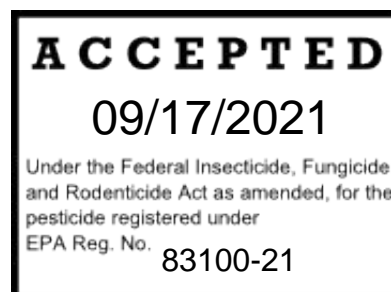
EPA Reg. No.: 83100-21**EPA Est. No.:****Manufactured [By] [For]:**

ROTAM AGROCHEMICAL COMPANY LIMITED

26/F E-Trade Plaza

24 Lee Chung Street

Chaiwan, Hong Kong

NET CONTENTS: _____ [Gals./Liters]**Batch Code:**

[Sub-Label A: Agricultural Use]

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[Optional referral statements when booklets and container labels are used:]

[See label booklet for [complete] [additional] [First Aid,] [Precautionary Statements,] [Directions For Use,] and [Storage and Disposal.]]

EPA Reg. No.: 83100-21**EPA Est. No.:****Manufactured [By] [For]:**

ROTAM AGROCHEMICAL COMPANY LIMITED
26/F E-Trade Plaza
24 Lee Chung Street
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NET CONTENTS: _____ [Gals./Liters]**Batch Code:**

[Table of Contents to be added before the Precautionary Statement.]

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if absorbed through skin or if swallowed. Avoid contact with skin, eyes, or clothing. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as Natural Rubber).

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 ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinylchloride (PVC) ≥ 14 mils or Viton ≥ 14 mils
- Shoes plus socks

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.

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “**Applicators and Other handlers**” and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

User should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove and wash contaminated clothing before reuse.

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 foraging 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.

PROTECTION OF POLLINATORS



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



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

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

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

When Using This Product Take Steps To:

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

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

<http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported

DIRECTIONS FOR USE

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

See individual crops for specific pollinator protection application restrictions. If none exist under the specific crop, for foliar applications, follow these application directions for crops that are contracted to have pollinator services or for food/feed & commercially grown ornamentals that are attractive to pollinators.



1. FOR CROPS UNDER CONTRACTED POLLINATION SERVICES

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met.

If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services

must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.



2. FOR FOOD CROPS AND COMMERCIALY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55°F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

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

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

SPRAY DRIFT MANAGEMENT

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

For Aerial Applications: The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or rotor diameter.

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

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

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

Mixing and loading Requirements

To avoid potential contamination of groundwater, 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 wellheads, sinkholes, or field drains.

Airblast (Air Assist) Specific Requirements for Tree Crops and Vineyards

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

- 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 applications to the outside rows.

No-Spray Zone Requirements for Soil and foliar 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 ROTAM 4F INSECTICIDE on erodible soils, Best Management Practices for minimizing runoff should be employed. 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.

ROTAM 4F INSECTICIDE 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. This may eventually result in partial or total loss of control of those species by ROTAM 4F INSECTICIDE and to other Group 4A products.

The active ingredient in ROTAM 4F INSECTICIDE belongs to the neonicotinoid chemical class.

When applying as a foliar treatment avoid using a block of more than three consecutive applications of ROTAM 4F INSECTICIDE and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Rotam strongly encourages the rotation to a block of applications with effective products of a different mode 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 pest's ability to develop resistance to this class of chemistry.

When applying as a soil treatment, do not apply more than one application of ROTAM 4F INSECTICIDE during a single growing season. Foliar applications of ROTAM 4F INSECTICIDE, or other Group 4A products from the neonicotinoid chemical class should not be made following a long residual, soil application of ROTAM 4F INSECTICIDE, or other neonicotinoid products.

Other Group 4 A, neonicotinoid products used as foliar treatments include: Actara, Admire, Assail, Calypso, Centric, Clutch, Couraze, Gallant, 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 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.irac-online.org/>

APPLICATION INSTRUCTIONS

Soil Application: Direct applications of ROTAM 4F INSECTICIDE into the seed or root-zone of crop. Failure to place ROTAM 4F INSECTICIDE into root-zone may result in loss of control or delay in onset of activity. Apply ROTAM 4F INSECTICIDE with properly calibrated ground or chemigation application equipment. Do not apply with aerial application equipment. Broadcast, foliar applications are only directed for use on seedling flats or trays, or where product is intended to be washed from foliage to soil prior to drying on foliage.

Optimum activity of ROTAM 4F INSECTICIDE results from applications to the root-zone of plants to be protected. The earlier ROTAM 4F INSECTICIDE is available to a developing plant, the earlier the protection begins. ROTAM 4F INSECTICIDE is continuously taken into the roots over a long period of time and the systemic nature of ROTAM 4F INSECTICIDE allows movement from roots through the xylem tissue to all vegetative parts of the plant. The rate of ROTAM 4F INSECTICIDE applied affects the length of the plant protection period. Use higher rate within the specified rate range when infestations occur later in crop development, or where pest pressure is continuous. ROTAM 4F INSECTICIDE will generally not control insects infesting flowers, blooms or fruit. Additional crop protection may be required for insects feeding in, or on these plant parts and for insects not listed in the crop-specific pests controlled sections of this label. Additional specific ROTAM 4F INSECTICIDE application instructions are also provided in the crop-specific sections of this label. Suppression, or less than complete control of certain diseases and insect pests including reduced feeding, may also result from ROTAM 4F INSECTICIDE applications. Complete control of these pests/diseases may require supplemental control measures.

ROTAM 4F INSECTICIDE is not allowed for use on crops grown for production of true seed intended for private or commercial planting unless issued under State specific 24(c) labeling. As with any insecticide, care should be taken to minimize exposure of ROTAM 4F INSECTICIDE to honey bees and other pollinators. Additional information on ROTAM 4F INSECTICIDE uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, or a private consultant.

Pre-mix ROTAM 4F INSECTICIDE with water or other appropriate diluent prior to application. Keep ROTAM 4F INSECTICIDE and water suspension agitated to avoid settling.

Restriction: Do not apply more than 0.50 lbs. active ingredient per acre per year regardless of formulation or method of application unless specified within a crop specific section for a given crop.

Foliar Application: Apply ROTAM 4F INSECTICIDE as a direct or broadcast foliar spray as listed pest populations begin to build. Thorough coverage of foliage is necessary without runoff for 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 ROTAM 4F INSECTICIDE on leaves and fruit may result in loss of insect control or delay in onset of activity.

ROTAM 4F INSECTICIDE may not knockdown established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed according to application directions. ROTAM 4F INSECTICIDE may be tank mixed with other insecticides as specified for knockdown of listed pests or for improved control of other listed pests.

ROTAM 4F INSECTICIDE may be applied with properly calibrated ground or aerial application equipment. Use minimum labeled spray volumes unless otherwise specified on crop specific application sections: 10 gallons/Acre by ground application and 5 gallons/Acre through aerial equipment. ROTAM 4F INSECTICIDE may also be applied by overhead chemigation (see additional CHEMIGATION DIRECTIONS FOR USE section below) if allowed in crop specific application section. ROTAM 4F INSECTICIDE is not directed for use on crops grown for production of true seed intended for private or commercial planting but may be allowed under State specific 24(c) labeling. As with any insecticide, care must be taken to minimize exposure of ROTAM 4F INSECTICIDE to honey bees and other pollinators.

Restrictions:

- Do not apply ROTAM 4F INSECTICIDE on crops requiring bee pollination during bloom and for a minimum of 10 days prior to bloom. Additional information on ROTAM 4F INSECTICIDE uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, or consultants.
- Do not apply more than 0.5 lbs. active ingredient per acre, per year, regardless of formulation or method of application unless specified within a crop specific section for a given crop.

Mixing Instructions

To prepare the application mixture, add a portion of the required amount of water to the tank and with agitation add ROTAM 4F INSECTICIDE. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. ROTAM 4F INSECTICIDE may also be used with other pesticides and/or fertilizer solutions (please see Compatibility Note below). When tank mixtures of ROTAM 4F INSECTICIDE and other pesticides are involved, prepare the tank mixture as directed above and follow suggested Mixing Order below.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Mixing Order

When pesticide mixtures are needed, add wettable powders first, ROTAM 4F INSECTICIDE 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 ROTAM 4F INSECTICIDE 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 poor mixing or formulations that do not readily redisperse.

CHEMIGATION USE DIRECTIONS

Types of Irrigation Systems

Chemigation applications of ROTAM 4F INSECTICIDE may only be made to crops through chemigation systems as specified in crop-specific Application sections of this label.

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.

Water Volume

Overhead foliar chemigation applications should be made as concentrated as possible. Retention of ROTAM 4F INSECTICIDE on target site of insect infestation is necessary for optimum activity. Chemigation applications of ROTAM 4F INSECTICIDE should not be made in water volumes exceeding 0.1 inches/Acre.

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 must 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 and wheat.

30-DAY PLANT-BACK: Cereals (including buckwheat, millet, oats, rice, rye, and triticale), soybeans (soil applications only) and safflower.
10-MONTH PLANT-BACK: Onions 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 Applications

Pests Controlled	Rate (fluid ounces/1,000 row-feet)	Rate (Fluid ounces/Acre)
Cotton aphid, Plant bugs, Thrips, Whiteflies	0.65	8.5-10.6 (Depending on row-spacing)
Restrictions:		
<ul style="list-style-type: none"> Maximum ROTAM 4F INSECTICIDE allowed year: 10.6 fluid ounces/Acre (0.33 lb. AI/Acre) Regardless of formulation or method of application, apply no more than 0.5 lb. active ingredient of ROTAM 4F INSECTICIDE, Trimax or Leverage per acre per year, including seed treatment as Gaucho, soil and foliar uses. Do not graze treated fields after any application of ROTAM 4F INSECTICIDE. 		
Please see Resistance Management section of this label.		
Applications:		
Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:		
<ol 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 Applications

Pests Controlled	Rate (fluid ounces/Acre)	
Aphid, Bandedwinged whitefly, Bollworm/Budworm (ovicidal effect), Cotton aphid, Cotton fleahopper, Green stink bug, Fleahoppers, Plant bugs (excludes <i>Lygus hesperus</i>), Southern green stink bug	1.0 to 2.0	
Pests Suppressed		
Lygus bug (<i>Lygus hesperus</i>), Whiteflies (other than bandedwinged whitefly)	1.5 to 2.0	
Restrictions:		
<ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 14 days Minimum interval between applications: 7 days Maximum ROTAM 4F INSECTICIDE allowed per year: 10 fluid ounces/Acre (0.31 lb. AI/A) Do not graze treated fields after any application of ROTAM 4F INSECTICIDE. Regardless of formulation or method of application, apply no more than 0.5 lb. active ingredient per acre per year, including seed treatment, soil and foliar uses. 		
Applications:		
Apply ROTAM 4F INSECTICIDE through properly calibrated ground, aerial or chemigation application equipment.		
Tank Mix Requirements		
Pests Controlled (in addition to pests listed above)	Rotam 4F Insecticide Rate (fluid ounces/Acre)	Bidrin 8* Rate (fluid ounces/Acre)
For early season control of: Thrips	1.0-1.5	1.6-3.2
For mid to late season control of: Plant bugs Stink bugs (including Brown stink bug) Grasshoppers Saltmarsh caterpillar Cotton leaf perforator	1.25-1.9	4.0-8.0
Restrictions (in addition to Restrictions listed above):		
*Refer to the Bidrin 8 product label for specific use rates; observe all restrictions and precautions that appear on the label.		

PEANUT^[1] – Soil Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Whiteflies	8.0-12.0
Thrips	8.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 12 fluid ounces/Acre (0.38 lb. AI/Acre)

[¹ Not registered for use in California.]

Applications:

Apply specific dosage in one of the following methods:

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

Important Note: Increases in Tomato spotted wilt virus (TSWV) incidence have been observed with applications of ROTAM 4F INSECTICIDE on multiple varieties of peanut. This may also be the case with other tospoviruses, or other viruses transmitted by various thrips species or perhaps, other pests. Prior to applying ROTAM 4F INSECTICIDE to peanuts, Rotam suggests consultation with State, Cooperative Extension Service, or a Rotam Representative. Growers are advised to weigh insect control benefits against potential increase in viral disease levels. In areas where TSWV or other tospovirus are endemic, growers are encouraged to use virus resistant varieties and consult the University of Georgia Tomato spotted wilt virus index before applying ROTAM 4F INSECTICIDE.

PEANUT^[1] – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Whiteflies	1.5
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 14 days • Minimum interval between applications: 5 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 4.2 fluid ounces/Acre (0.13 lb. AI/Acre) 	
[¹ Not registered for use in California.]	

POTATO – Soil Applications

Pests Controlled	Rate (fluid ounces/1,000 row-feet)	Rate (fluid ounces/Acre)
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Potato psyllid	0.45 - 0.65	6.5-10.0
Pests / Diseases Suppressed		
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
Restrictions:		
<ul style="list-style-type: none"> • Maximum ROTAM 4F INSECTICIDE allowed per year: 10.0 fluid ounces/Acre (0.31 lb. AI/Acre) 		
Applications:		
Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:		
<ol style="list-style-type: none"> 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, ROTAM 4F INSECTICIDE 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 ROTAM 4F INSECTICIDE 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/100 lbs. seed)	Rate (fluid ounces/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		
Symptoms of: Potato leaf roll virus (PLRV) Potato yellows Net necrosis	0.4	8.0

Restrictions:

- Maximum ROTAM 4F INSECTICIDE allowed per year: 10.0 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 ROTAM 4F INSECTICIDE (in-furrow), Gaucho®, Leverage® or ROTAM 4F INSECTICIDE following an ROTAM 4F INSECTICIDE seed-piece treatment.

Application:

Apply specified dosage as a diluted spray onto seed-pieces using a shielded spray system. Dilute with 3 parts water, or less, to 1 part ROTAM 4F INSECTICIDE. Agitate or stir spray solution as needed. Fungicidal or inert absorbent dusts may be applied after ROTAM 4F INSECTICIDE 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 ROTAM 4F INSECTICIDE treated seed-pieces to sunlight and in accordance with the direction of your local Extension specialist.

Consult your local crop protection product dealer for information relevant to your area.

* Based on a seeding rate of 2,000 lbs./acre.

POTATO – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Psyllids	1.5
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum Interval between applications: 7 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 6.0 fluid ounces/Acre (0.19 lb. AI/A) 	
Applications:	
Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial application equipment.	

SOYBEAN^[1] – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Bean leaf beetle, Cucumber beetles, Rootworm adults, Japanese beetle (adults), Leafhoppers, Whiteflies	1.5
Restrictions:	
<ul style="list-style-type: none"> • Pre-harvest Interval (PHI): 21 days • Minimum interval between applications: 7 days • Maximum Rotam 4F Insecticide allowed per year: 4.5 fluid ounces/Acre (0.14 lb. AI/A) 	
[¹ Not registered for use in California or New York State.]	

TOBACCO – Soil Applications

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	0.7
Mole crickets, Whiteflies, Wireworms	0.7-1.4	0.9-1.4
Pests / Diseases Suppressed		
Cutworms Symptoms of: Tomato spotted wilt virus	0.7-1.4	0.9-1.4

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. AI/Acre)

Applications:

1. Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:
2. 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 ROTAM 4F INSECTICIDE from foliage into potting media. Failure to wash ROTAM 4F INSECTICIDE from foliage may result in a reduction in pest control. Transplants must be handled carefully during setting to prevent dislodging treated potting media from roots.
3. In-furrow spray or transplant-water drench during setting.
4. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

Important Note: Proper tray drench applications of ROTAM 4F INSECTICIDE have been shown to be the most efficacious method of application. However, the specified rate of ROTAM 4F INSECTICIDE 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 ROTAM 4F INSECTICIDE into the plant and a delay in control.

TOBACCO – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids	0.8-1.6
Flea beetles, Japanese beetle	1.6

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 7 days
- Maximum number of ROTAM 4F INSECTICIDE allowed per year: 9 fluid ounces/Acre (0.28 lb. AI/A)

Applications:
Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial application equipment.

Vegetable and Small Fruit Crops**CUCURBIT VEGETABLES¹ – Soil Applications**

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 Applications (See details below for additional planthouse applications)	
Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Cucumber beetles, Leafhoppers, Thrips (foliage-feeding thrips only), Whiteflies	8.0-12.0
Pests / Diseases Suppressed	
Bacterial wilt (as vectored by various cucumber beetles) Leaf silvering resulting from whitefly feeding	8.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre)

¹Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:
Apply specified dosage of ROTAM 4F INSECTICIDE 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. ROTAM 4F INSECTICIDE must be incorporated into root-zone.

Planthouse Applications^[2]	
Pests Controlled	Rate (fluid ounces/1,000 Plants)
Aphids, Whiteflies	0.05
Restrictions: <ul style="list-style-type: none"> Maximum amount ROTAM 4F INSECTICIDE applied in the planthouse: 0.05 fluid ounces (0.00156 lb. Al)/1,000 plants. Maximum number ROTAM 4F INSECTICIDE applications in planthouse: 1 ¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling. ² Not registered for use in California.	
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: <ol style="list-style-type: none"> Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash ROTAM 4F INSECTICIDE from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash ROTAM 4F INSECTICIDE 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. <p>The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants must be handled carefully during setting to avoid dislodging treated potting media from roots.</p> <p>Important Note: Not all varieties of cucurbit vegetables have been tested for tolerance to ROTAM 4F INSECTICIDE applied to seedling flats. Treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.</p>	

FRUITING VEGETABLES¹ and OKRA - Soil Applications

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

Field Applications (See details below for additional planthouse applications)	
Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Colorado beetle potato, Flea beetles, Leafhoppers, Thrips (foliage-feeding thrips only), Whiteflies	Okra and Pepper: 8.0-16.0 Other Crops: 8.0-12.0
Pests / 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
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 21 days Maximum ROTAM 4F INSECTICIDE allowed on pepper and okra crops per crop season: 16.0 fluid ounces/Acre (0.5 lb. Al/Acre) Maximum ROTAM 4F INSECTICIDE allowed on other fruiting vegetable crops per crop season: 12.0 fluid ounces/Acre (0.38 lb. Al/Acre) ¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.	
Applications: Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods: <ol 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" 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. ROTAM 4F INSECTICIDE must be incorporated into root-zone. 	
Planthouse Applications^[2]	
Pests Controlled	Rate (fluid ounces/1,000 Plants)
Aphids, Whiteflies	0.05

Restrictions:

- Maximum amount ROTAM 4F INSECTICIDE applied in the planthouse: 0.05 fluid ounces (0.00156 lb. AI)/1,000 plants.
- Maximum number ROTAM 4F INSECTICIDE applications in planthouse: 1

¹Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

[² Not registered for use in California.]

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 ROTAM 4F INSECTICIDE from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash ROTAM 4F INSECTICIDE 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 will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection.

Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants must be handled 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 ROTAM 4F INSECTICIDE applied to seedling flats. Treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

FRUITING VEGETABLES and OKRA¹ – Foliar Applications

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

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Colorado potato beetle, Leafhoppers, Whiteflies	1.5 – 2.5
Pepper weevil (Pepper only)	2.5

Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 5 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 7.5 fluid ounces/Acre (0.24 lb. AI/A)

¹Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:

For all pests listed except pepper weevil, apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial application equipment. For pepper weevil, apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray by ground equipment to infested area, timing applications prior to a damaging population becoming established. Good coverage of foliage and fruit is necessary for insecticidal control.

Applications of ROTAM 4F INSECTICIDE 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 Extension Specialist or crop advisor.

GREENHOUSE VEGETABLES¹ – Soil Applications

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

Pests Controlled	Rate (fluid ounces/1,000 plants)
Aphids, Whiteflies	0.7

Restrictions:

- Pre-harvest Interval (PHI): 0 days
- Maximum number ROTAM 4F INSECTICIDE applications per crop season: 1

¹Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Application:

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. Apply only to plants grown in field-type soils, potting media, or mixtures, thereof. Do not apply to plants grown in non-soil media such as perlite, vermiculite, rock wool, or other soil-less media, or plants grown hydroponically. Do not apply to immature plants since phytotoxicity may occur.

Apply when infestation pressure threshold and beneficial are not able to maintain pest populations below damage thresholds. Negative effects on pollinators and other beneficials (*Orius sp.*) can occur when ROTAM 4F INSECTICIDE is applied.

Many varieties of vegetables have been tested for tolerance to ROTAM 4F INSECTICIDE and show good safety. However, certain varieties may show more sensitivity to ROTAM 4F INSECTICIDE. Treat a few plants and evaluate before treating the whole greenhouse.

GLOBE ARTICHOKE – Soil Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers	8.0-16.0
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 7 days Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) 	
Applications: Apply specified dosage in one of the following methods: <ol 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 	

GLOBE ARTICHOKE – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers	1.6 - 4.0
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 7 days Minimum interval between applications: 14 days Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) 	
Applications: Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.	

HERBS – Soil Applications

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

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Flea beetles, Leafhoppers, Whiteflies	8.0-12.0
Pests Suppressed	
Thrips (foliage feeding thrips only)	8.0-12.0
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 14 days Maximum ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre) 	
Applications: Apply specified dosage in one of the following methods: <ol style="list-style-type: none"> 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 of each be treated and evaluated prior to commercial use.	

HERBS – Foliar Applications

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

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 7 days Minimum interval between applications: 5 days Maximum ROTAM 4F INSECTICIDE allowed per crop season: 4.2 fluid ounces/Acre (0.13 lb. AI/Acre) 	
Applications: Apply ROTAM 4F INSECTICIDE 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 specified use rate may improve coverage and control.	
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 of each and evaluate prior to commercial use.	

BRASSICA (COLE) LEAFY VEGETABLES¹ – Soil Applications

Including: Broccoli, Broccoli raab (*rapini*), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese (*gai ion*) 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/Acre) (on 36 inch rows)
Aphids, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	5.0-12.0
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 21 days Maximum ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre) ¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.	
Applications: Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods: <ol 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 ½" 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. ROTAM 4F INSECTICIDE must be incorporated into root zone. 	

BRASSICA (COLE) LEAFY VEGETABLES¹ – Foliar Applications

Including: Broccoli, Broccoli raab (*rapini*), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese (*gai ion*) broccoli, Chinese (*bok choy*) cabbage, Chinese (*napa*) cabbage, Chinese mustard (*gai choy*) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.5
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 7 days Minimum interval between applications: 5 days Maximum ROTAM 4F INSECTICIDE allowed per crop season: 7.4 fluid ounces/Acre (0.23 lb. AI/A) ¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.	

LEAFY GREENS VEGETABLES and WATERCRESS¹ – Soil Applications

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), 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/Acre) (on 36 inch rows)
Aphids, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	5.0-12.0
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 21 days Maximum ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre) ¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.	
Applications: Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods: <ol 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 ½" 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. ROTAM 4F INSECTICIDE must be incorporated into root zone. 	

LEAFY GREENS VEGETABLES and WATERCRESS¹ – Foliar Application

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), Radicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach), Watercress (commercial production only), Watercress (upland)¹

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.5

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 7.4 fluid ounces/Acre (0.23 lb. AI/A)
- Applications must not be made to native cress growing in streams or other bodies of water.

¹Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.

LEAFY PETIOLE VEGETABLES¹ – Soil Applications

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	5.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 45 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre)

¹Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE 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 ½" 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. ROTAM 4F INSECTICIDE must be incorporated into root-zone.

LEGUME VEGETABLES¹ Except Soybean (dry) – Soil Applications

Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean

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

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

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

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

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

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Thrips (foliage-feeding thrips only), Whiteflies	8.0-12.0

Pests / Diseases Suppressed

Symptoms of:

Bean common mosaic virus (BCMV)

Bean golden mosaic virus (BGMV)

Beet curly top hybrigeminivirus (BCTV)

8.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre)

¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE 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 1/2" 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.

LEGUMES VEGETABLES¹ Except Soybean (dry) – Foliar Applications

Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean

Bean (*Lupinus* spp., includes grain lupin, sweet lupin, white lupin, and white sweet lupin)Bean (*Phaseolus* spp., includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)Bean (*Vigna* spp., includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean)Pea (*Pisum* spp. includes dwarf pea, edible 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, Whiteflies	1.4

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 4.2 fluid ounces/Acre (0.13 lb. AI/A)

¹Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.**Applications:**

Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.

ROOT VEGETABLES¹ – Soil ApplicationsIncluding: Beet (garden)[†], Burdock (edible)[†], Carrot[†], Celeriac[†], Chervil (turnip-rooted)[†], Chicory[†], Ginseng, Horseradish, Kava^{[2], †}, Parsley (turnip-rooted), Parsnip[†], Radish[†], Oriental radish (daikon)[†], Rutabaga[†], Salsify (oyster plant), Salsify (black)[†], Salsify (Spanish), Skirret and Turnip[†]

Pests Controlled	Rate (fluid ounces/1,000 row-feet)	Rate (fluid ounces/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 ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre)
- Maximum ROTAM 4F INSECTICIDE applications per crop season: 1

¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.[² Not registered for use in California.]**Application:**

Apply specified dosage of ROTAM 4F INSECTICIDE 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 rate within the specified rate range where infestations occur later in crop development, or where pest pressure is continuous. ROTAM 4F INSECTICIDE rates less than 0.7 fluid ounces/1,000 row-feet will not provide adequate residual pest control. ROTAM 4F INSECTICIDE treated crops grown on very high organic matter soils (muck) may also require additional pest management control.[†] Tops or greens from these crops may be utilized for food or feed.**ROOT VEGETABLES¹ – Foliar Applications**Including: Beet (garden)[†], Burdock (edible)[†], Carrot[†], Celeriac[†], Chervil (turnip-rooted)[†], Chicory[†], Ginseng, Horseradish, Kava^{[2], †}, Parsley (turnip-rooted), Parsnip[†], Radish[†], Oriental radish (daikon)[†], Rutabaga[†], Salsify (black)[†], Salsify (oyster plant), Salsify (Spanish), Skirret, Turnip[†]

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 1.4 fluid ounces/Acre (0.044 lb. AI/A) on radish; 4.2 fluid ounces/Acre (0.13 lb. AI/A) on other crops
- Maximum ROTAM 4F INSECTICIDE applications per crop season: 1 on radish; 3 on other crops

¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

[² Not registered for use in California.]

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.

[†] Tops or greens from these crops may be utilized for food or feed.

TUBEROUS and CORM VEGETABLES¹ – Soil Applications

Including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter & sweet)[†], Chayote (root), Chufa, Dasheen (taro)[†], Ginger, Leren, Sweetpotato, Tanier (cocoyam)[†], Turmeric, Yam bean (Jicama, manioc pea), Yam (true)[†]

(For specific 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	0.35 - 0.85	5.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI) from planting application: 3 days (leaves); 125 days (corms)
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre)
- Maximum ROTAM 4F INSECTICIDE applications per crop season: 1

¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:

1. 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;
2. Side-dress not more than 0.3 fluid ounces/1,000 row-feet no later than 45 days after-planting. Observe same PHI as above.

Important Note: The rate applied affects the length of control. Use higher rate within the specified rate range where infestations occur later in crop development, or where pest pressure is continuous. ROTAM 4F INSECTICIDE rates less than 0.35 fluid ounces/1,000 row-feet may not provide adequate residual pest control. ROTAM 4F INSECTICIDE treated crops grown on very high organic matter soils (muck) may also require additional pest management control.

[†] Tops or greens from these crops may be utilized for food or feed.

TUBEROUS and CORM VEGETABLES¹ – Foliar Applications

Including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter & sweet)[†], Chayote (root), Chufa, Dasheen (taro)[†], Ginger, Leren, Sweet potato, Tanier (cocoyam)[†], Turmeric, Yam bean (jicama, manioc pea), Yam (true)[†]

For applications on potato see Field Crops section

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Flea beetles, Leafhoppers, Whiteflies	1.4

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 4.2 fluid ounces/Acre (0.13 lb. AI/A)
- Maximum ROTAM 4F INSECTICIDE applications per crop season: 3

¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.

[†] Tops or greens from these crops may be utilized for food or feed.

STRAWBERRY¹ – Soil Applications

Annual and Perennial Crops	
Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Whiteflies	12.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum ROTAM 4F INSECTICIDE allowed per year season: 16.0 fluid ounces/Acre (0.50 lb. AI/Acre)
- Do not apply immediately prior to bud opening or during bloom or when bees are foraging.

¹ Do not use both application methods on the same crop in the same season.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:

1. 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;
2. As a plant material or plant hole treatment just prior to, or during transplanting.

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

Post-harvest Use on Perennial Crops**Pests Controlled****Rate (fluid ounces/Acre)**

White grub complex
(grubs of Asiatic garden beetle, European and Masked chafer,
Japanese beetle, Oriental beetle)

8.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 12.0 fluid ounces/Acre (0.38 lb. AI/A)

¹ Do not use both application methods on the same crop in the same season.

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 ROTAM 4F INSECTICIDE 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 must 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.

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 ROTAM 4F INSECTICIDE into egg-deposition zone may result in decreased activity.

STRAWBERRY – Foliar Applications**Pest Controlled****Rate (fluid ounces/Acre)**

Aphids, Spittlebugs, Whiteflies

1.5

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum ROTAM 4F INSECTICIDE allowed per crop season: 4.5 fluid ounces/Acre (0.14 lb. AI/A)
- Do not apply during bloom or within 10 days prior to bloom or when bees are foraging.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.

SUGARBEET¹ (for use only in CA) – Soil Applications**Pests Controlled****Rate (fluid ounces/Acre)**

Aphids, Leafhoppers, Whiteflies, Flea beetles

3.0-6.0

Pests / Diseases Suppressed

Symptoms of: Western yellows / Beet curly top hybrigeminivirus
(BCTV)

3.0-6.0

Restrictions:

- Maximum ROTAM 4F INSECTICIDE allowed per year: 6.0 fluid ounces/Acre (0.18 lb. AI/Acre)
- Maximum imidacloprid allowed per year: 0.18 lb. AI/Acre (from any formulation) on any row spacing

¹ Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE in the following method:

1. Apply specified dosage in sufficient carrier volume to ensure 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.

ROTAM 4F INSECTICIDE CONVERSION CHART FOR LINEAR APPLICATION								
RATE: fluid ounces/Acre	RATE: fluid ounces/1,000 row-feet (Based on average row spacing (In Inches)):							
	10	15	20	25	30	35	40	45
5	0.10	0.14	0.19	0.24	0.28	0.33	0.38	0.43
6	0.12	0.17	0.23	0.28	0.34	0.40	0.46	0.51
7	0.14	0.20	0.26	0.33	0.40	0.47	0.54	0.60
8	0.16	0.23	0.30	0.38	0.46	0.54	0.61	0.69
9	0.17	0.26	0.34	0.43	0.51	0.60	0.69	0.78
10	0.19	0.28	0.38	0.48	0.58	0.67	0.77	0.86
11	0.21	0.32	0.42	0.52	0.63	0.74	0.84	0.94
12	0.23	0.34	0.46	0.58	0.69	0.80	0.92	1.04
13	0.25	0.38	0.50	0.62	0.74	0.87	0.99	1.12
14	0.27	0.40	0.54	0.67	0.80	0.94	1.07	1.21
15	0.28	0.43	0.58	0.72	0.86	1.00	1.14	1.29
16	0.30	0.46	0.61	0.76	0.92	1.07	1.22	1.38

Important Note: The ROTAM 4F INSECTICIDE rate applied affects the length of control and to a considerable extent, the degree of control or effect.

Use the higher labeled rate within the rate range where row-spacing X ROTAM 4F INSECTICIDE rate combinations in shaded blocks may not provide adequate residual pest control and are not directed for long-term, residual control. Use the higher labeled rate within the rate range where infestations may occur later in crop development or where pest pressure is continuous. Rotam Agrochemical Company Limited offers no warranty for use of ROTAM 4F INSECTICIDE at rates below 0.35 fluid ounces/1,000 row-feet.

TREE, BUSH and VINE CROPS

BANANA and PLANTAIN – Soil Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers	8.0-16.0
Pest Suppressed	
Scales	8.0-16.0
Restrictions:	
<ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 0 days Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) 	
Applications:	
Apply specified dosage in the following method:	
1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.	

BANANA and PLANTAIN – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Thrips	3.2
Restrictions:	
<ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 0 days Minimum interval between applications: 14 days Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) 	
Applications:	
Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area insuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial application equipment. Aerial application of ROTAM 4F INSECTICIDE 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/100 gallons, finished spray solution may improve coverage and pest control.	

BUSHBERRY – Soil Applications

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)	8.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. AI/Acre)
- Do not apply pre-bloom or during bloom or when bees are foraging.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE 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 ROTAM 4F INSECTICIDE to control 1st or 2nd instar larvae. Make applications post-bloom up to 7 days prior to harvest, or post-harvest until October 1st. Make applications from June 1st to July 15th for optimum control of Japanese beetle larvae.

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 ROTAM 4F INSECTICIDE to moist soil. If necessary, apply one hour of irrigation water immediately before application of ROTAM 4F INSECTICIDE. To ensure maximum efficacy, 1/2 to 1 inch of irrigation water or rainfall must be applied or received within 24 hours of application of ROTAM 4F INSECTICIDE to facilitate movement into the soil and into the root-zone.

BUSHBERRY – Foliar Applications

Including: Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, Salal

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers/Sharpshooters	1.2-1.6
Blueberry maggot, Japanese beetle (adults), Thrips	2.4-3.2

Restrictions:

- Pre-Harvest Interval (PHI): 3 days
- Minimum interval between applications: 7 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 16 fluid ounces/Acre (0.5 lb. AI/A)
- Maximum number of ROTAM 4F INSECTICIDE applications per year: 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 foraging.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.

CANEBERRY^[1] (Crops of the Caneberry) – Soil Applications

Including: **Blackberry** (*Rubus* spp. - 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, Rosssberry, Shawnee blackberry, Youngberry, and varieties and/or hybrids of these).

Raspberry (Black and Red raspberry, *Rubus occidentalis*, *Rubus strigosus*, *Rubus idaeus*)

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Whiteflies	8.0-16.0
Rednecked cane borer	12.0-16.0

Pest Suppressed

Thrips (foliage feeding thrips only)	8.0-16.0
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Restrictions:

- Pre-Harvest Interval (PHI): 7 day
- Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

[¹Not registered for use in California.]

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.

CANEBERRY^[1] (Crops of the Caneberry) – Foliar Applications

Including: **Blackberry** (*Rubus* spp. - including Andean Blackberry, Arctic blackberry, Bingleberry, Black satin berry, Boysenberry, Brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, Common blackberry, Coryberry, Darrowberry, Dewberry, Dirksen thornless berry, Evergreen blackberry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth blackberry, Marionberry, Moras, Mures deronce, Nectarberry, Northern dewberry, Olallieberry, Oregon

evergreen berry, Phenomenalberry, Rangeberry, Ravenberry, Rossberry, Shawnee blackberry, Southern dewberry, Tayberry, Youngberry, Zazzamora, and varieties and/or hybrids of these).

Raspberry (*Rubus* spp. - including Bababerry, Black raspberry, Blackcap, Caneberry, Framboise, Frambueso, Himbeere, Keriberry, Mayberry, Red raspberry, Thimbleberry, Tulameen, Yellow raspberry, and varieties and/or hybrids of these, and Wild raspberry)

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Thrips	3.2
Restrictions:	
<ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 3 day Minimum interval between applications: 7 days Maximum ROTAM 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A) Do not apply pre-bloom or during bloom or when bees are foraging. 	
[¹ Not registered for use in California.]	

CITRUS (Containerized) – Soil Applications

Including: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, 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	0.38
Citrus root weevil (larval complex)	0.62-1.25
Pests / Diseases Suppressed	
Citrus thrips (foliage feeding thrips only)	1.25
Restrictions:	
<ul style="list-style-type: none"> Pre-Harvest Interval: 0 days Maximum ROTAM 4F INSECTICIDE allowed per application: 0.5 mLs./0.1ft.³ container media Maximum ROTAM 4F INSECTICIDE allowed per crop season: 3.0 mLs./plant. Do not apply pre-bloom or during bloom when bees are foraging. 	
Application:	
For commercial nursery production in standard “citra pot” of 0.1 ft.³ volume:	
Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:	
<ol style="list-style-type: none"> Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. Basal, soil drench in a minimum of 30 mLs. total solution per “citra pot”. 	
<ul style="list-style-type: none"> 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 but do not apply more than 3.0 mLs./plant per season. For control of larvae of the citrus root weevil complex, apply prior to neonate larvae entering potting media. 	
For applications to citrus production with other container volumes:	
<ul style="list-style-type: none"> Determine the volume of the container and calculate the required dosage needed based on 0.50 mLs./0.1 ft.³ potting media. Apply calculated dosage per container as described above. Do not exceed 3.0 mLs./plant per crop season regardless of container size. 	
Phytotoxic Effects Precaution: Not all varieties or hybrids of citrus have been tested for phytotoxic effects following a ROTAM 4F INSECTICIDE application. If you have not used ROTAM 4F INSECTICIDE on containerized citrus of a specific variety/hybrid, treat a few plants and observe for phytotoxic effects for up to 60 days before treating the entire nursery.	

CITRUS (Field) – Soil Applications

Including: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, 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	8.0-16.0
Pests / Diseases Suppressed	
Citrus nematode Symptoms of: Citrus tristeza virus (CTV) through vector control Citrus yellows, Thrips (foliage feeding thrips only)	16.0
Restrictions:	
<ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 0 Days Maximum ROTAM 4F INSECTICIDE allowed year: 16.0 fluid ounces/Acre (0.50 lb. AI/Acre) 	

Applications:

Apply specified dosage 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 must be lightly pre-wetted to break soil surface tension prior to applications of ROTAM 4F INSECTICIDE. Chemigation application can be made separate to normal irrigation but followed by 10 to 20 minutes of additional watering to move ROTAM 4F INSECTICIDE into root-zone. Allow 24 hours before initiating subsequent irrigations;
2. Soil surface band spray on both sides of the tree. Bands must overlap at the tree base to create a continuous band within the drip-line are 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;
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 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 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 ROTAM 4F INSECTICIDE over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

CITRUS – Foliar Applications

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

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Asian citrus psyllid, Black fly, Leafhoppers/Sharpshooters, Leafminers, Mealy bugs, Scales, Whiteflies	4.0 - 8.0 (depending on tree size, target pest and infestation pressure)
Pests Suppressed	
Thrips	4.0-8.0
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 days • Minimum interval between applications: 10 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 16 fluid ounces/Acre (0.5 lb. Al/A) • Do not apply during bloom or within 10 days prior to bloom or when bees are foraging. 	
Applications:	
Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of ROTAM 4F INSECTICIDE may result in slower activity and reduced control to results from ground application.	
Scales - Time applications to the crawler stage. Treat each generation.	

COFFEE – Soil Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Leafminers	8.0-16.0
Pest Suppressed	
Scales	8.0-16.0
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. Al/Acre) • Do not apply pre-bloom or during bloom or when bees are foraging. 	
Applications:	
Apply specified dosage in one of the following methods:	
<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 ensure incorporation into the root-zone followed by irrigation. 	

COFFEE – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers, Whiteflies	3.2
Pest Suppressed	
Scales	3.2

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area insuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of ROTAM 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.

CRANBERRY – Soil Applications

Pests Controlled	Rate (fluid Ounces/Acre)
Rootgrubs (<i>Scarabaeidae</i>) Rootworms (<i>Chrysomelidae</i>)	8.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 30 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. AI/Acre)
- Do not apply pre-bloom or during bloom or when bees are foraging.

Applications:

Apply ROTAM 4F INSECTICIDE to moist soil. Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:

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 gal. water.

Immediately upon application, ROTAM 4F INSECTICIDE 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.

Rootgrubs and Rootworms: Apply post-bloom immediately after bees are removed for best control. Applications should target early instar larvae. ROTAM 4F INSECTICIDE 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 ROTAM 4F INSECTICIDE 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.

GRAPE – Soil Applications

Including: American bunch grape, Muscadine grape and Vinifera grape

Pests Controlled	Rate (fluid ounces/Acre)
European fruit lecanium, Mealybugs, Leafhoppers/Sharpshooters, <i>Phylloxera* spp.</i>	8.0-16.0
Pests / Diseases Suppressed	
Grape skeletonizer, Nematodes, Pierce's disease	12.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 30 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.50 lb. AI/Acre)

Applications:

Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:

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 ensure incorporation into the root-zone followed by irrigation.
4. For suppression of nematodes, apply 16 fluid ounces in a single application or two 8 fluid ounce applications on a 30 to 45-day interval. Apply treatments 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 ROTAM 4F INSECTICIDE over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

Make application(s) between bud-break and the pea-berry stage for optimum results. Use a total of 16.0 fluid ounces/Acre under any of the following conditions:

- 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 ROTAM 4F INSECTICIDE over several, consecutive growing seasons controls existing *Phylloxera* infestations over time or prevents *Phylloxera* from becoming established.

GRAPE – Foliar Applications

Including: American bunch grape, Muscadine grape and Vinifera grape

Pests Controlled	Rate (fluid ounces/Acre)
Mealybugs Leafhoppers/Sharpshooters	1.2-1.6
Pests / Diseases Suppressed	
Grapeleaf Skeletonizer	1.5-1.6
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 days • Minimum interval between applications: 14 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 3.2 fluid ounces/Acre (0.1 lb. AI/Acre) 	
Applications:	
ROTAM 4F INSECTICIDE may be applied by ground application only.	

HOPS – Soil Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids	9.6
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 60 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/Acre) 	
Applications:	
Apply specified dosage of ROTAM 4F INSECTICIDE in one of the following methods:	
<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 ensure incorporation into the root-zone followed by irrigation. 	

HOPS – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids	3.2
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 28 days • Minimum interval between applications: 21 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A) 	
Applications:	
Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment.	

POME FRUIT – Soil Applications

Including: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince

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

POME FRUIT – Foliar Applications

Including: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince

Pests Controlled	Rate (fluid ounces/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	8.0
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 7 days Minimum interval between applications: 10 days Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) Do not apply pre-bloom or during bloom or when bees are foraging. Applications: Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of ROTAM 4F INSECTICIDE may result in slower activity and reduced control to results from ground application. <u>Leafhoppers</u> - Apply low rate for low to moderate populations of white apple leafhoppers and high rate for high populations or for other leafhopper species. Apply ROTAM 4F INSECTICIDE while most leafhoppers are in the nymphal stage. <u>Leafminer</u> - For first generation leafminer control, make application as soon as pollination is complete and bees are removed from the orchard. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. ROTAM 4F INSECTICIDE will not control late instar larvae. <u>Mealybugs</u> - Apply maximum gallonage for tree with around equipment. Ensure good spray coverage of the trunk and scaffolding limbs or other resting sites of mealybugs. <u>Rosy apple aphid</u> - Apply prior to leafrolling caused by rosy apple aphid. <u>San Jose scale</u> - Time applications to the crawler stage. Treat each generation.	

POMEGRANATE – Soil Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers/Sharpshooters, Whiteflies	8.0-16.0
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 0 days Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/Acre) Do not apply pre-bloom or during bloom or when bees are foraging. Applications: Apply specified dosage in the following method: <ol style="list-style-type: none"> Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. 	

POMEGRANATE – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers/Sharpshooters, Whiteflies	3.2
Pest Suppressed	
Scales	3.2
Restrictions: <ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 7 days 	

- Minimum interval between applications: 7 days
- Maximum ROTAM 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A)
- Do not apply pre-bloom or during bloom or when bees are foraging.

STONE FRUIT – Soil Applications

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	8.0-12.0
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 21 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 12.0 fluid ounces/Acre (0.38 lb. AI/Acre) • Do not apply pre-bloom or during bloom or when bees are foraging. 	
Applications:	
Apply specified dosage in the following method:	
1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.	
Pre-plant, Root Dip Application	
Pest Controlled	Rate (fluid ounces/10 gallons root-dip solution)
Black peach aphid (infesting roots)	1.0
Mix ROTAM 4F INSECTICIDE at 2.0 fluid ounces per 10 gallons of water. Thoroughly wet bare-root transplant to slightly above the graft union by soaking roots in the ROTAM 4F INSECTICIDE solution for up to 5 minutes. Allow solution to dry on roots and transplant trees as soon as possible following treatment.	

STONE FRUIT – Foliar Application

Including: Apricot, Cherry (including sweet and tart), nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh and dried)

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Green June beetle, Japanese beetle, Leafhoppers/Sharpshooters, Plant bugs, Rose chafer, San Jose scale	1.6-3.2
Cherry fruit fly (maggot of Eastern and Western)	3.2
Pest Suppressed	
Plum curculio, Stink bugs	3.2
Restrictions for Apricot, Nectarine, Peach:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 0 days • Minimum interval between applications: 7 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 9.6 fluid ounces/Acre (0.3 lb. AI/A) • Minimum application volume (water): 50 GPA - ground application; 25 GPA - aerial application • Do not apply pre-bloom or during bloom or when bees are foraging. 	
Restrictions for Cherries, Plums, Plumcot, Prune:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 day • Minimum interval between applications: 10 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) • Minimum application volume (water): 50 GPA - ground application; 25 GPA - aerial application • Do not apply pre-bloom or during bloom or when bees are foraging. 	
Applications:	
Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of ROTAM 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.	

TREE NUTS Except Almonds – Soil Applications

Including: 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	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:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/Acre) 	

- Do not apply pre-bloom or during bloom or when bees are foraging.

Applications:

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

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent irrigation equipment. Pre-wet soil prior to applications of ROTAM 4F INSECTICIDE 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. 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 must follow 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 within the specified rate range when applied by shank or subsurface sidedress, 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 NUTS Except Almonds – Foliar Applications

Including: 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 (except Black pecan aphid), Leafhoppers/Sharpshooters, Phylloxera sp. (leaf infestations), Spittlebugs, Whiteflies	1.4-2.8
Black pecan aphid, Mealybugs, San Jose scale	3.2
Restrictions:	
<ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 7 days Minimum interval between applications: 6 days Maximum ROTAM 4F INSECTICIDE allowed per year: 11.4 fluid ounces/Acre (0.36 lb. AI/A) Minimum application volume (water): 50 GPA - ground application; 25 GPA - aerial application Do not apply pre-bloom or during bloom or when bees are foraging. 	
Applications:	
Applications for control of San Jose scale should be timed according to crawler stage, treating each successive generation. Two applications on a 10- to 14-day interval may be required to achieve control.	

TROPICAL FRUIT – Soil Applications

Acerola, Atemoya, Avocado, Birida, Black sapote, Canistel, Cherimoya, Custard apple, Feijoa, Jaboticaba, Guava, Ilima, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop, Spanish lime, Star apple, Starfruit, Sugar apple, Wax jambu

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Avocado lacebug, Leafhoppers, Whiteflies	12.0-16.0
Pest Suppressed	
Scales, Thrips (foliage feeding thrips only)	16.0
Restrictions:	
<ul style="list-style-type: none"> Pre-Harvest Interval (PHI): 6 days Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/Acre). Do not apply pre-bloom or during bloom or when bees are foraging. 	
Applications:	
Apply specified dosage in the following method:	
<ol style="list-style-type: none"> Chemigation through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. 	

TROPICAL FRUIT – Foliar Application

Acerola, Atemoya, Avocado, Birida, Black sapote, Canistel, Cherimoya, Custard apple, Feijoa, Jaboticaba, Guava, Ilima, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop, Spanish lime, Star apple, Starfruit, Sugar apple, Wax jambu

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leafhoppers/Sharpshooters, Mealybugs, Thrips (Foliage feeding thrips only), Whiteflies	3.2
Pest Suppressed	

Scales	3.2
Restrictions: <ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 10 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) • Maximum number ROTAM 4F INSECTICIDE applications per year: 5 • Do not apply pre-bloom or during bloom or when bees are foraging. 	
Applications: Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of ROTAM 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.	

OTHER CROPS

CHRISTMAS TREE – Soil Applications

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)	8.0-16.0
Restrictions: <ul style="list-style-type: none"> • Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) 	
Applications: Soil incorporation and movement of ROTAM 4F INSECTICIDE to the root-zone is required for activity. ROTAM 4F INSECTICIDE can be incorporated most readily when applied to moist soil. Apply specified dosage in one of the following methods: <ol style="list-style-type: none"> 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 - 1 inch of irrigation within 12 hours after application. For optimal grub control, apply ROTAM 4F INSECTICIDE during adult flight activity, or up to mid-July, when 1 st instar larvae are present.	

CHRISTMAS TREE – Foliar Applications

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Adelgids, Sawflies	1.6-3.2
Restrictions: <ul style="list-style-type: none"> • Minimum interval between applications: 7 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A) 	
Applications: Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of ROTAM 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application. <p>Gall-forming adelgids: Time applications to coincide with full bud-swell or first bud-break of earliest bud-breaking trees. Once galls form spraying will be ineffective.</p>	

POPLAR/COTTOWOOD^[1] – Soil Applications

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

Field applications (see details below for Cutings/Whips Application)

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Cottonwood leaf beetle	8.0-16.0
Pest Suppressed	
<i>Phylloxera popularia</i>	8.0-16.0

Restrictions:

- Maximum ROTAM 4F INSECTICIDE allowed at-plant per year: 16.0 fluid ounces/Acre (0.5 lb. AI/Acre)
- Do not apply pre-bloom or during bloom or when bees are foraging.

[¹Not registered for use in California.]

Applications:

Apply specified dosage 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, irrigate 0.25 inches/Acre.)

For Cottonwood leaf beetle, protection against damage will occur when application is made early- season, when the beetles first begin feeding. Larger trees may require earlier treatment as a result of slower uptake.

For *Phylloxera*, apply early in the year, from break of dormancy through May.

Cutting/Whip Applications¹ See details above for Field Application Directions.

Pest Controlled	Cutting/Whip Soaking Solution (fluid ounces ROTAM 4F INSECTICIDE 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 ROTAM 4F INSECTICIDE allowed at-plant per year: 16.0 fluid ounces/Acre (0.5 lb. AI/Acre)

[¹Not registered for use in California.]

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* sp. clones/varieties/hybrids have been tested for crop safety. Without specific knowledge about a particular *Populus* sp. clone/variety/hybrid, Rotam recommends that small numbers of cuttings/whips of each be treated and evaluated prior to commercial use.

Apply ROTAM 4F INSECTICIDE in one of the following cuttings/whips soaking methods:

1. 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.
2. 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/COTTON WOOD^[1] – Foliar Applications

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

Pests Controlled	Rate (fluid ounces/Acre)
Aphids, Leaf beetles	1.6-3.2
Restrictions:	
<ul style="list-style-type: none"> • Pre-Harvest Interval (PHI): 7 days • Minimum interval between applications: 10 days • Maximum ROTAM 4F INSECTICIDE allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/A). • Do not apply pre-bloom or during bloom or when bees are foraging. 	
[¹ Not registered for use in California.]	
Applications:	
Apply specified dosage of ROTAM 4F INSECTICIDE as a broadcast or directed spray to infested area ensuring thorough coverage. Apply ROTAM 4F INSECTICIDE through properly calibrated ground or aerial equipment. Aerial application of ROTAM 4F INSECTICIDE may result in slower activity and reduced control relative to results from ground application.	

DRENCH AND IRRIGATION APPLICATIONS

For use only on ornamentals, vegetable and herb plants grown in small containers in greenhouses, nurseries and interior plantscapes using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

Pests	CONTAINERIZED PLANTS		
	Container Size (inches)	Herbaceous Species-including Vegetable Plants and Herbs (1 or 2 plants per pot)	Woody Perennials, Herbaceous Species-including Vegetable Plants and Herbs (3 or more plants per pot)
		# of Containers treated with 1.0 fl. oz.(30 mL)	
Adelgids	2	3,000	2,000
Aphids	3	2,000	1,350
Armored Scale (suppression)	4	1,500	1,000
Fungus Gnats ¹ (larvae only)	5	1,200	800
Flea Beetles	6	1,000	650
Japanese Beetle (adults)	7	850	550
Lacebugs	8	750	500
Leaf Beetles (including elm and viburnum leaf beetles)	9	675	450
Leaf Hoppers (including glassy-winged sharpshooter)	10	600	400
Leafminers	11	550	350
Mealybugs	12	500	300
Psyllids	Application Instructions: Use sufficient water volume to wet potting medium without loss of liquid through leaching. Apply according to label directions.		
Root Mealybugs ²	Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient due to leaching.		
Root Weevil Complex (Such as black vine weevil, Apopka weevil, citrus root weevil ³)	PLANTS IN FLATS, ON BENCHES, OR IN BEDS		
Soft Scale	0.34 fluid ounce (10 mL) per 1,000 square feet		
Thrips (suppression) ⁴	Application Instructions: Mix required amount in sufficient water to uniformly and accurately cover the area being treated. Do not use less than 2 gallons of mixture per 1,000 sq. ft.		
White Grub =Larvae (such as Japanese beetle, masked chafers, European chafer, oriental beetle, Asiatic garden beetle)	Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are established. If application is made to established plants, irrigate lightly after application. Allow no leaching or run out for 10 days after application.		
Whiteflies			
White Grub Larvae (such as Japanese beetle, masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)			

Restrictions:

- Not for use on agricultural establishments covered by the WPS (40 CFR Part 170).
- Do not apply while bees are foraging.
- Do not apply to flowering plants. Apply only after all petals have fallen off.
- For ornamentals grown in the ground, applications of this product cannot exceed a total of 12.8 fluid ounces (0.8 pint) (0.4 lb. of active ingredient) per acre per year.
- Pre-harvest Interval (PHI): 14 days
- For use on vegetable plants intended for resale only: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato
- For use on the following herbs intended for resale only: Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Burnet, 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

¹**Fungus gnat larvae** in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of this product from a healthy root system translocating the active ingredient up into the plant.

²**Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.0 fluid ounce (30 mL) in 150 gallons of water.

³**Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

⁴**Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

DRENCH & IRRIGATION APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS AND HERBS GROWN IN LARGE CONTAINERS, IN FLATS, ON BENCHES, OR IN BEDS

Application Instructions: Use 1.0 fl. oz. (30 mL) of product in an appropriate amount of water to prevent leaching. 1.0 fl. oz. (30 mL) will treat the number of containers specified below, based on container size.

Pests	Container Size (gallons)	# of Containers treated with 1.0 fluid ounces (30 mL)
Adelgids	1	340 - 244
Aphids	2	280 - 210

Armored Scale (suppression)	3	220 - 185
Fungus Gnats ¹ (larvae only)	5	160 - 110
Flea Beetles	7	100 - 75
Japanese Beetle (adults)	10	60 - 45
Lacebugs	15	40 - 30
Leaf Beetles (including elm and viburnum leaf beetles)	20	20 - 15
Leaf Hoppers (including glassy-winged sharpshooter)		
Leafminers		
Mealybugs		
Psyllids		
Root mealybugs ²		
Root Weevil Complex (Such as black vine weevil, Apopka weevil, citrus root weevil ³)		
Soft Scale		
Thrips (suppression) ⁴		
White Grub larvae (such as Japanese beetle, masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)		
Whiteflies		
White Grub Larvae (such as Japanese beetle, masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)		

Application Instructions:

- Use sufficient water volume to wet potting medium without loss of liquid through leaching.
- Apply according to label directions.
- Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient due to leaching.

Restrictions:

- Not for use on agricultural establishments covered by WPS (40 CFR Part 170).
- For ornamentals grown outdoors in ground, applications of this product cannot exceed a total of 12.8 fluid ounces (0.8 pint) (0.4 lb. of active ingredient) per acre per year.
- For use on vegetable plants intended for resale: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato
- For use on the following herbs intended for resale only: Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Burnet, 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

¹**Fungus gnat larvae** in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of this product from a healthy root system translocating the active ingredient up into the plant.

²**Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.0 fluid ounce (30 mL) in 150 gallons of water.

³**Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

⁴**Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

SOIL APPLICATIONS: Field and Forest Nurseries

Pests	Application Rate
White Grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	0.85 fl. oz. (25 mL) per 1,000 ft. of row or 3,000 sq. ft.

Application Instructions:

- Apply as a uniform band on either side of row using a band 6 inches wider than the actual root ball diameter to be dug.
- Apply May through July.
- Time application such that rainfall or irrigation occurs within 24 hours after treatment.
- Mow vegetation in surrounding areas to a height of 3 inches or less prior to treatment. To ensure greater control, mow to the lowest height possible.
- For grub control in areas of turf, apply as a broadcast application using 0.68 to 0.85 fl. oz. (20 to 25 mL) per 3,000 sq. ft.

Restrictions:

- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the state of Oregon.
- Do not use less than 2 gallons of spray volume per 1,000 square feet.
- DO NOT exceed 12.8 fluid ounces/acre per year (0.8 pint) (0.4 lb. AI/A).
- Do not allow bands in adjacent rows to overlap.

APPLICATIONS FOR NURSERY, GREENHOUSE AND INTERIORESCAPE PLANTS

Adelgids	Leaf beetles (including elm and viburnum leaf beetles)	Roundheaded borers (including Asian longhorned beetles)
Aphids		
Armored scales (suppression)	Leafhoppers (including glassy-winged sharpshooter)	Royal palm bugs
Black vine weevil larvae		Sawfly larvae*
Eucalyptus longhorned borers	Leafminers	Soft scales
Flatheaded borers (including Emerald borer, bronze birch and alder borers)	Ash Mealybugs	Thrips (suppression)
Japanese beetles (adults)	Pine Tip moth larvae	White grub larvae
Lacebugs	Plant Bugs	Whiteflies
	Psyllids	

TREES

Use the following rates as a function of tree diameter at breast height (DBH):

- Apply 0.05 - 0.2 fl. oz. per inch of trunk diameter (DBH). You may use the higher rate (0.15 - 0.2 fl. oz.) only for trees greater than 15 DBH to control the following pests: Asian Longhorned Beetle, Emerald Ash Borer, Eucalyptus Longhorned Borer, Bronze Birch Borer, and Alder Borer.

Restrictions:

- Not for use on agricultural establishments covered by the WPS (40 CFR Part 170).
- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the state of Oregon.
- Do not apply more than 12.8 fl. oz. (0.4 lb. of active ingredient) per acre per year.
- Diameter at Breast Height (D.B.H.) = is measured at 4.5 feet from the ground.

Soil Injection:

GRID SYSTEM: Space holes on 2.5 ft. centers, in a grid pattern, extending to the drip line of the tree.

CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line.

BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days.

Do not use less than 4 holes per tree.

New York State Specific Restriction: No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.

Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.

For Control of Specified Borers: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.

SHRUBS

Application Rate: 0.05 to 0.1 fl. oz. (1.5 to 3 mL) per foot of shrub height

Soil Injection: Apply to individual plants using dosage indicated. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per shrub.

New York State Specific Restriction: No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.

Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.

FLOWERS and GROUND COVERS

Application Rate: 0.23 to 0.3 fl. oz. (7 to 8.5 mL) per 1,000 sq. ft.

Apply as a broadcast soil treatment and incorporate into the soil before planting or apply after plants are established prior to bloom or after all petals have fallen off. If application is made to established plants, irrigate lightly after application

*Sawfly larvae feed on mature foliage starting in early spring. Make treatments in the fall before sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage.

Restriction: Do not exceed 0.8 pts. (0.4 lb. of active ingredient) per acre per year.

**APPLICATION TO ORNAMENTALS AND VEGETABLE PLANTS
(Nurseries, Greenhouses, Interior Landscapes)**

ROTAM 4F INSECTICIDE controls insects on ornamental and vegetable plants through translocation upward into the plant system. For optimum control, apply ROTAM 4F INSECTICIDE where the growing portion of the target plant can absorb the active ingredient. Uptake of the active ingredient into the plant system can be enhanced by adding a nitrogen containing fertilizer into the solution. ROTAM 4F INSECTICIDE can be applied by foliar application or soil application including soil injection drenching and broadcast spray.

Systemic activity of ROTAM 4F INSECTICIDE will be delayed when making soil applications to plants with woody stems until the active ingredient is translocated throughout the plant. Make application before anticipated pest infestation.

Media with 30% or more bark content may confer a shorter period of protection when treated with ROTAM 4F INSECTICIDE.

Some insects develop resistance to insecticides after repeated use. Resistance to ROTAM 4F INSECTICIDE cannot be predicted. Use of ROTAM 4F INSECTICIDE must conform to resistance management practices established for the use area. Consult your local or state pest management authorities for details.

FOLIAR & BROADCAST APPLICATIONS: ORNAMENTAL TREES (including non-bearing fruit & nut trees), SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, GROUNDCOVERS, INTERIOR PLANTSCAPES, VEGETABLE PLANTS (around field-grown nursery and container stock, indoor and outdoor ornamentals (including both greenhouse and interior plantscapes) and ornamentals grown in flats, benches or beds).

FOLIAR APPLICATIONS	
Pests	Dosage - Rotam 4F Insecticide
Adelgids Aphids Honeylocust Plant Bug Diptera (including Rhododendron gall midge, Honeylocust pod gall midge) Froghopper Galls (including Hickory stem gall) Japanese Beetles Lace Bugs Leaf Beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Liftminers (including Boxwood leafminer) Mealy Bugs Planthoppers Psyllids Sawfly Larvae Scales (including Lecanium, Azalea bark, Calico, Cottony Camellia, Cottony Maple, Cottony taxus) Spittlebugs Thrips (suppression) (including Flower, Pear and Pine thrips) Treehoppers Weevils (including White Pine and Black Vine) Whiteflies	0.85 fl. oz. (25 mL) per 100 gallons of water When making applications on hard to wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker will improve coverage. If concentrate or mist type spray equipment is used apply an equivalent amount of product on the area sprayed as would be used in a dilute application.

Application Instructions:

Start treatments prior to establishment of high pest populations and reapply on an as needed basis. For resistance management purposes, do not apply by foliar application after a soil application on the same crop.

Restriction:

- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the state of Oregon.

BROADCAST APPLICATIONS	
Pests	Dosage - Rotam 4F Insecticide
White Grub Larvae (such as Japanese beetle larvae, Chafers, <i>Phyllaphaga</i> spp., Asiatic garden beetle, Oriental beetle)	0.23 to 0.30 fl. oz. (7 to 8.5 mL) per 1,000 sq. ft.

Application Instructions:

Mix required amount of product in sufficient water to uniformly and accurately cover the area being treated. Do not use less than 2 gallons of water per 1,000 square feet. Following application, irrigate thoroughly to incorporate this insecticide into the upper soil profile. Refer to use directions specific for Flowers and Ground Covers concerning additional use directions.

Restrictions:

- For use on vegetable plants intended for resale: Broccoli, Chinese Broccoli, Broccoli Raab, Brussel Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.
- Do not harvest or consume fruits or nuts from trees that have been treated within 1 year (365 days) of application.
- For outdoor plants grown in ground, do not exceed a total of 0.8 pint (0.4 lb. of active ingredient) per acre per year.
- Do not apply to flowering plants. Apply only after all petals have fallen off.

EBB & FLOOD APPLICATION

ROTAM 4F INSECTICIDE may be applied through Ebb and Flood applications to ornamental and vegetable plants (intended for resale only) grown in containers. Prior to treatment, bring a minimum of 10 plants up to known field capacity and allow to dry out for one or two days to assure accurate uptake. Re-wet these plants to determine how much water on average each plant will absorb to bring it back at field capacity. Use the volume absorbed per plant (keeping pot sizes uniform) multiplied by the number of pots being treated. Add to this volume a required minimum to flood your smallest treatment area. This should minimize the return back to the storage tank. Reuse the returned volume with subsequent irrigation or nutrients on the same plants.

EBB & FLOOD APPLICATIONS: ORNAMENTAL and VEGETABLE PLANTS GROWN IN CONTAINERS		
Adelgids	Leafhoppers (including glassy-winged sharpshooter)	Soft Scales
Aphids	Leafminers	Thrips (suppression) ⁴
Armored Scales (suppression)	Mealybugs	Whiteflies
Fungus Gnats (larvae only) ¹	Psyllids	White Grub Larvae: (such as Japanese beetle, masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)
Japanese Beetles (adults)	Root Mealybugs ²	
Lacebugs	Root Weevil Complex: (such as Apopka weevil,	
Leaf Beetles (including elm and		

Pot Sizes (Inches)	Herbaceous Species including Vegetable Plants ⁵ (1 or 2 plants per pot)	Woody Perennials, Herbaceous Species including Vegetable Plants ⁵ (3 or more plants per pot)
	mL/100 plants	
2	1.6	2.5
3	2.5	3.7
4	3.3	5.0
5	4.2	6.3
6	5.0	7.7
7	5.9	9.1
8	6.6	10.0
9	7.4	11.1
10	8.3	12.5
11	9.0	14.3
12	10.0	16.7

Restrictions:

- For use on vegetable plants intended for resale only including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.
- For outdoor ornamentals grown in ground, applications of ROTAM 4F INSECTICIDE cannot exceed a total of 0.8 pint (0.4 lb. of active ingredient) per acre per year.

¹**Fungus gnat larvae** in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of ROTAM 4F INSECTICIDE from a healthy root system translocating the active ingredient up into the plant.

²**Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.0 fl. oz. (30 mL) in 150 gallons of water.

³**Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

⁴**Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

⁵For use only on vegetable plants intended for resale: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.

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.

Pesticide Disposal: Open dumping is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Disposal: Nonrefillable Container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling, or puncture and dispose of in a sanitary landfill, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Residue Removal: Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

SPILLS: For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. 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. You may contact the CHEMTREC Emergency Response for decontamination procedures.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC AT 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ROTAM AGROCHEMICAL COMPANY LIMITED or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ROTAM AGROCHEMICAL COMPANY LIMITED and Seller harmless for any claims relating to such factors.

ROTAM AGROCHEMICAL COMPANY LIMITED warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ROTAM AGROCHEMICAL COMPANY LIMITED, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM AGROCHEMICAL COMPANY LIMITED MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

In no event shall ROTAM AGROCHEMICAL COMPANY LIMITED or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

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[REGISTERED: 02/11/2010

Amended: 04/19/2010 (Addition of Peanuts)

Amended: 06/11/2010 (Caution Signal Word)

Amended: 09/07/2010 (Addition of Soybeans)

NOTIFICATION 12/15/2010 (Storage & Disp. Update)]

[Sub-label B: Turf & Non-Crop Use]

IMIDACLOPRID GROUP 4A INSECTICIDE

ROTAM® 4F InsecticideFor foliar and systemic insect control in turfgrass, landscape ornamentals, listed residential fruit and nut trees, and interior
plantscapes.**ACTIVE INGREDIENT:**

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine 40.6%

OTHER INGREDIENTS: 59.4%**TOTAL:** 100.0%

Contains 4 pounds of imidacloprid per gallon.

SHAKE WELL BEFORE USING**KEEP OUT OF REACH OF CHILDREN
CAUTION**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID (neonicotinoid)	
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 to 20 minutes. • Call a poison control center or doctor for treatment advice.
Have a product container or label with you when calling a poison control center or doctor, or going for treatment You may also contact 1-866-927-6826 .	
Note To Physician (neonicotinoid): No specific antidote is available. Treat the patient symptomatically.	

[Optional referral statements when booklets and container labels are used:][See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.
See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.
See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.
See label booklet for complete Directions For Use.]**EPA Reg. No.: 83100-21****EPA Est. No.****Manufactured [By] [For]:**ROTAM AGROCHEMICAL COMPANY LIMITED
26/F E-Trade Plaza
24 Lee Chung Street
Chaiwan, Hong Kong**NET CONTENTS:** _____ [Gals./Liters]**Batch Code:**

[Table of Contents to be added before the Precautionary Statement.]

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if absorbed through skin or if swallowed. Avoid contact with skin, eyes, or clothing. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as Natural Rubber).

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 ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinylchloride (PVC) ≥ 14 mils or Viton ≥ 14 mils
- Shoes plus socks

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

User should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove and wash contaminated clothing before reuse.

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 foraging 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.

PROTECTION OF POLLINATORS



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



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

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

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

When Using This Product Take Steps To:

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

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

<http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported

DIRECTIONS FOR USE

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

See individual crops for specific pollinator protection application restrictions. If none exist under the specific crop, for foliar applications, follow these application directions for crops that are contracted to have pollinator services or for food/feed & commercially grown ornamentals that are attractive to pollinators.

Non-Agricultural Products



- Do not apply ROTAM® 4F Insecticide while bees are foraging.
- Do not apply ROTAM® 4F Insecticide to plants that are flowering. Only apply after all flower petals have fallen off.

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.

NON-AGRICULTURAL USE REQUIREMENTS

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

Keep children and pets off treated area until dry.

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 PONDS.

RUNOFF MANAGEMENT

Do not cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. 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. Consult your Cooperative Extension Service for resistance management strategies and pest management practices for your area. For resistance management purposes, do not use a foliar application of any chloronicotinyl insecticide following a ROTAM 4F INSECTICIDE soil application in the same cropping sequence.

This product contains a Group 4A insecticide called imidacloprid. Insect biotypes with acquired or inherent tolerance to group 4A products may eventually dominate the insect population if Group 4A products 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 this product and to other Group 4A products.

The active ingredient in this product is a member of the neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of this product and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Rotam strongly encourages the rotation to a block of applications with effective products of a different mode 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 pest's ability to develop resistance to this class of chemistry.

Foliar applications of this product or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with long-residual, soil-applied products from the neonicotinoid chemical class. Other Group 4A, neonicotinoid products used as foliar treatments include: Actara®, Assail®, Calypso®, Centric®, Intruder™, Leverage® and Trimax™. Other 4A Group, neonicotinoid products used as soil treatment include: Admire® and Platinum®.

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://irac-online.org/>

PRODUCT INFORMATION AND INSTRUCTIONS

ROTAM 4F INSECTICIDE is for use on ornamentals in commercial and residential landscapes and interior plantscapes. ROTAM 4F INSECTICIDE is a systemic product and will be translocated upward within the plant. To assure effectiveness, the ROTAM 4F INSECTICIDE must be placed where the growing portion of the target plant can absorb the active ingredient. The addition of a nitrogen containing fertilizer, where applicable, into the solution may enhance the uptake of the active ingredient. Application can be made by foliar application or soil applications; including soil injection, drenches, chemigation and broadcast sprays. Mix product with the required amount of water and apply as desired dependent upon the selected use pattern.

This product has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. The physical compatibility of this product may vary with different sources of pesticide products and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage. This product may not knockdown established and heavy insect populations. Two applications may be required to achieve control; retreat if needed

and as directed on this label. Tank mix this product with other insecticides as recommended for knockdown of listed pests or for improved control of other listed pests.

RESTRICTION: For applications outdoors (except plants grown in trays or benches), do not apply more than 0.4 lb. active ingredient per acre per year (365 days) regardless of formulation and method of application.

Mixing Instructions

To prepare the application mixture, add a portion of the required amount of water to the spray tank, begin agitation, and add this product. Complete filling tank with the balance of water needed. Be sure to maintain agitation during both mixing and application.

This product may also be used with other pesticides and/or fertilizer solutions; refer to the Compatibility Section below. When tank mixtures of this product and other pesticides are involved, prepare the tank mixture as specified above and follow the suggested Mixing Order below.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Mixing Order

When pesticide mixtures are needed, add wettable powders first, this product or other flowables second, and emulsifiable concentrates last. Ensure good agitation as each component is added and do not add an additional component until the previous is thoroughly mixed. A fertilizer / pesticide compatibility agent may be needed if a fertilizer solution is to be added to the mixture. Be sure to maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

Compatibility

Before adding this product to the spray or mix tank, the compatibility of the intended tank mixture should be checked using the following test:

- 1) Add proportionate amount of each ingredient in the appropriate order to a pint or a quart jar;
- 2) Cap and shake for 5 minutes;
- 3) Let set for 5 minutes.

DO NOT use if poor mixing or formation of precipitates that do not readily re-disperse occur, indicating an incompatible mixture. For further information, contact your local Rotam representative.

APPLICATION INSTRUCTIONS

Apply this product as a directed or broadcast foliar spray using properly calibrated ground application equipment as allowed in the specific application section. For insecticidal efficacy, thorough coverage of all target foliage without runoff is necessary. To obtain thorough coverage use adequate spray volumes, properly calibrated application equipment and a spray adjuvant if necessary. Failure to provide adequate coverage and retention of this product on leaves and fruit, if present, may result in loss of insect control or delay in onset of activity. Minimum spray volumes, unless otherwise specified on crop specific application sections, are 10 gallons/acre by ground.

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.

Mixing and Loading Requirements

To avoid potential contamination of groundwater, 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 areas and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes, or field drains.

Importance of Droplet Size

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

Wind Speed Restrictions

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

Restrictions During Temperature Inversions

Because the potential for spray drift is high during temperature inversions, do NOT make ground applications during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground

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

No-Spray Zone Requirements for Foliar Applications

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

APPLICATION TO GRASSY AREAS IN NURSERIES

ROTAM 4F INSECTICIDE can be used as directed on nursery grass in sites such as under or around field or container grown plants, on roadways or other grassy areas in or around the outside perimeter of nurseries.

The active ingredient in ROTAM 4F INSECTICIDE has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. High levels of control can be achieved when applications are made preceding or during the egg laying period. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Optimum control will be achieved when applications are made prior to egg hatch of the target pests. Follow applications with sufficient irrigation or rainfall to move the active ingredient through the thatch.

Restrictions for Grassy Areas in Nurseries:

- Do not make applications when grassy areas are waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.
- Application cannot exceed a total of 0.8 pint (0.4 lb. of active ingredient) per acre per year.
- Refer to the "APPLICATION TO TURFGRASS" section for additional applications and rates.

Application Equipment for Grassy Areas in Nurseries:

Apply ROTAM 4F INSECTICIDE in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift. Check calibration periodically to ensure that equipment is working properly.

GRASSY AREAS OF FIELD & FOREST NURSERIES	
Larvae of the following Pests	Dose Rate
Annual Bluegrass Weevil Asiatic Garden Beetle Billbugs Black Turfgrass Ataenius Cutworms (suppression) European Chafer European Crane Fly Green June Beetle Japanese Beetle May Or June Beetle Northern Masked Chafer Oriental Beetle Phyllophaga Spp. Southern Masked Chafer	9.6 to 12.8 fl. oz. acre (0.6 to 0.8 pts. per acre) or 0.23 to 0.30 fl. oz. (7 to 8.5 mL) per 1,000 sq. ft.
Chinchbugs (suppression) Mole Crickets	12.8 fl. oz. per acre (0.8 pts. per acre) or 0.30 fl. oz. (8.5 mL) per 1,000 sq. ft.

Application Instructions:

For optimum control of grubs, billbugs and annual bluegrass-weevil, make application prior to egg hatch of the target pest. Be sure to read "Application Equipment for Grassy Areas in Nurseries" section of this label.

For suppression of chinchbugs, make application prior to or during the hatching of the first instar nymphs. For control of mole crickets make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, accompany application with a remedial insecticide. Follow label instruction for other insecticides when tank-mixing.

Consult your local state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application.

Restrictions:

- Irrigation or rainfall must occur within 24 hours after application to move the active ingredient through the thatch.
- Do not mow treated turf or lawn area until sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.

- Application cannot exceed a total of 0.8 pint (0.4 lb. of active ingredient) per acre per year.
- Do not apply to flowering plants. Apply only after all petals have fallen off.
- Do not apply if bees are foraging the treatment area.

APPLICATION TO TURFGRASS

ROTAM 4F INSECTICIDE can be used as directed on turfgrass in residential lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields (not including turf being grown for sale or commercial use as sod, or for commercial seed productions, or for research purposes).

The active ingredient in ROTAM 4F INSECTICIDE has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. High levels of control can be achieved when applications are made preceding or during the egg laying period. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Optimum control will be achieved when applications are made prior to egg hatch of the target pests. If rainfall does not occur within 24 hours after application, follow applications with sufficient irrigation to move the active ingredient through the thatch.

Application Methods

Apply ROTAM 4F INSECTICIDE in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

TURFGRASS APPLICATIONS		
Pests	Rate- Rotam 4F Insecticide	Remarks
Larvae of: Annual Bluegrass Weevil Asiatic Garden Beetle Billbugs Black Turfgrass Ataenius Cutworm (suppression) European Chafer European Crane Fly Green June Beetle Japanese Beetle May Or June Beetle Northern Masked Chafer Southern Masked Chafer Oriental Beetle <i>Phyllophaga Spp.</i>	0.63 to 0.8 pt. per acre or 0.23 to 0.3 fl. oz. (7 to 8.5 mL) per 1,000 sq. ft.	For optimum control of grubs, billbugs and annual bluegrass weevil, and European crane fly make application prior to egg hatch of the target pest. Be sure to read “ APPLICATION METHODS ” section for Application to Turfgrass.
Chinchbugs (suppression) Mole Crickets	0.8 pt. per acre or 0.3 fl. oz. (8.5 mL) per 1,000 sq. ft.	For suppression of chinchbugs, make application prior to or during the hatching of the first instar nymphs. For control of mole crickets make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, ROTAM 4F INSECTICIDE application should be accompanied by a remedial insecticide. Follow the most restrictive label instructions when tank mixing.

Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application.

Restrictions:

- Not for use on plants being grown for sale or other commercial use or for commercial seed, sod production or for research purposes.
- Do not apply more than 0.8 pts. (0.4 lb. of active ingredient) per acre per year.
- Do not mow turf or lawn area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.
- Do not apply to turfgrass through any irrigation system.
- Do not make applications when turfgrass areas are waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- Do not allow this product to contact plants in bloom while bees are foraging in the treatment area.
- Do not graze treatment areas or use clippings from treated areas for feed or forage.
- Do not allow runoff or puddling of irrigation water following application.
- Keep children and pets off treated area until dry.

APPLICATION TO LANDSCAPE ORNAMENTALS

ROTAM 4F INSECTICIDE can be applied on ornamentals in commercial and residential landscapes and interior plantscapes, on following sites: residential lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields. It is a systemic product and will be translocated upward into the plant system from root uptake. To assure effectiveness, ROTAM 4F INSECTICIDE must be placed where the growing portion of the target plant can absorb the active ingredient. The addition of a nitrogen containing fertilizer, where applicable, into the solution may enhance the uptake of the active ingredient. Application can be made by foliar application or soil applications; including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against insect pests.

Restrictions:

- Not for use in commercial greenhouses, nurseries, or on grass grown for seed, or on commercial fruit and nut trees.
- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the state of Oregon.
- For outdoor applications, do not exceed a total of 0.8 pint (0.4 lb. of active ingredient) per acre per year.

Application Methods:

Mix product with the required amount of water and apply as desired dependent upon the selected use pattern.

Soil Applications:

When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. In some cases, this translocation delay could take 60 days or longer. For this reason, applications should be made prior to anticipated pest infestation to achieve optimum levels of control.

ROTAM 4F INSECTICIDE is compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. The physical compatibility of ROTAM 4F INSECTICIDE may vary with different sources of pesticide products and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

Ant Management Programs

Use this product to control aphids, scale insects, mealybugs and other sucking pests on ornamentals to limit the honeydew available as a food source for ant populations. Applications can then be supplemented with residual sprays, bait placements or other ant control tactics to further reduce the pest population.

FOLIAR APPLICATION TO ORNAMENTAL TREES, SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, INTERIOR PLANTSCAPES AND GROUNDCOVERS (in and around the perimeter of industrial and commercial buildings and residential areas)		
FOLIAR APPLICATIONS		
Pests	Use Rate	Remarks
Adelgids Aphids Japanese Beetles Lace Bugs Leaf Beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids Sawfly Larvae Thrips (suppression) Whiteflies	0.85 fl. oz. (22.5 mL) per 100 gals. of water	Start treatments prior to establishment of high pest populations and reapply on as needed basis. Do not make a foliar application following a soil application in the same crop for resistance management purposes. When making applications on hard to wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker will improve coverage. If concentrate or mist type spray equipment is used apply an equivalent amount of product on the area sprayed as would be used in a dilute application.
BROADCAST APPLICATIONS		
White Grub Larvae (such as Japanese beetle larvae, Chafer, <i>Phyllophaga</i> spp., Asiatic garden beetle, Oriental beetle)	0.23 to 0.3 fl. oz. (7 to 8.5 mL) per 1,000 sq. ft.	Mix required amount of product in sufficient water to uniformly and accurately cover the area being treated. Do not use less than 2 gallons of water per 1,000 sq. ft. For optimum control, irrigate thoroughly to incorporate ROTAM 4F INSECTICIDE into the upper soil profile. Refer to use direction specific for FLOWERS and GROUND COVERS concerning additional use directions.

Restrictions:

- Follow application restrictions for Non-Agricultural Uses on page 4 to protect bees and other insect pollinators.
- DO NOT apply more than 12.8 fluid ounces (0.8 pints) (0.4 lb. AI) per acre per year.
- DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year (365 days) of application.
- DO NOT apply through any irrigation system.
- Keep children and pets off treated area until dry
- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species in the state of Oregon.
- Not for use in commercial greenhouses, nurseries, or on grasses grown for seed, or on commercial fruit and nut trees.

SOIL APPLICATION TO ORNAMENTAL TREES, SHRUBS, FLOWERS AND GROUNDCOVERS		
For use only in and around the outside perimeter of industrial and commercial buildings and residential areas, and state, national, and private wooded and forested areas for the insect pests listed below.		
Pests	Use Rate	Instructions
Adelgids Alder Borer Aphids Armored Scales (suppression) Black Vine Weevil Larvae Eucalyptus Longhorned Borer Flatheaded Borers (including emerald ash borer, bronze birch and alder borer) Japanese Beetles Lace Bugs Leaf Beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine Tip Moth Larvae Psyllids Roundheaded Borers (including Asian Longhorned beetles) Royal Palm Bugs Sawfly Larvae* Soft Scales Thrips (suppression) White Grub Larvae Whiteflies	FOR TREES: Use the following rates as a function of tree diameter at breast height (DBH): Apply 0.05 - 0.2 fl. oz. per inch of trunk diameter (DBH). You may use the higher rate (0.15 - 0.2 fl. oz.) only for trees greater than 15 DBH to control the following pests: Asian longhorned beetle Emerald Ash Borer Eucalyptus longhorned borer Bronze birch borer Alder borer Restriction: Do not apply more than 12.8 fl. oz. (0.4 lb. of active ingredient) per acre per year. Diameter at Breast Height (D.B.H.) = is measured at 4.5 feet from the ground.	TREES Soil Injection: GRID SYSTEM: Space holes on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7- to 10- days. Do not use less than 4 holes per tree. New York State Specific Restriction: No Soil Injection applications allowed in Nassau or Suffolk Counties of New York. Oregon State Specific Restriction: Do not apply this product, by any application method, to linden, basswood or other <i>Tilia</i> species in the State of Oregon. Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone. For Control of Specified Borers: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress. For Control of Specified Borers: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.
	0.05 to 0.1 fl. oz. (1.5 to 3 mL) per foot of shrub height	SHRUBS Soil Injection: Apply to individual plants using dosage indicated. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone, Keep the treated area moist for 7- to 10- days. Do not use less than 4 holes per shrub. New York State Specific Restriction: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York. Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.
	0.23 to 0.3 fl. oz. (7 to 8.5 mL) per 1,000 sq. ft.	FLOWERS and GROUNDCOVERS Apply as a broadcast soil treatment and incorporate into the soil before planting or apply after plants are established prior to bloom or after all petals have fallen off. If application is made to established plants, irrigate thoroughly after application.

*Sawfly larvae feed on mature foliage beginning in early spring. Make treatments in the fall before pine sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage.

Restrictions:

- DO NOT apply more than 12.8 fluid ounces (0.8 pint) (0.4 lb. AI) per acre per year.
- DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year (365 days) of application.
- DO NOT apply through any irrigation system.

FOLIAR APPLICATION FOR USE ONLY IN AND ON RESIDENTIAL AREAS**Pome Fruits: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince (For Residential Areas Only)**

Not for use in California on Pears

Not for use in California on Pome fruits around perimeter of industrial and commercial buildings

Pests	Rate- Rotam 4F Insecticide
Aphids (except Woolly apple aphid) Leafhoppers (including glassy winged sharpshooter)*** Leafminer Mealybugs* San Jose Scale**	0.75 fl. oz. (22.5 mL) per 100 gal. of water or 3.0 fl. oz. per acre ¹

Application Instructions:

- Apply specified dosage as foliar spray as needed after petal-fall is complete.
- For control of rosy apple aphid, apply prior to leafrolling caused by the pest.
- For first generation leafminer control, make first application as soon as petal-fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. ROTAM 4F INSECTICIDE will not control late stage larvae.

*For optimal control of mealybug, ensure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybug.

**For San Jose Scale, time applications to the crawler stage. Treat each generation.

***For late season (pre-harvest) control of leafhopper species, apply ROTAM 4F INSECTICIDE while most leafhoppers are in the nymphal stage.

¹The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

Restrictions:

- Follow application restrictions for Non-Agricultural Uses on page 4 to protect bees and other insect pollinators.
- Do not apply more than 3.0 fluid ounces per acre in a single application.
- Do not make more than 4 applications per year.
- Allow 10 or more days between applications.
- Do not apply more than 0.8 pint (0.4 lb. of active ingredient) per acre per year.
- Allow at least 7 days between last application and harvest.
- Keep children and pets off treated area until dry.

Pecans[*]: For Residential Areas Only

Pests	Use Rate
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	0.75 fl. oz. (22.5 mL) per 100 gals. of water or 3.0 fl. oz. per acre ¹

Application Instructions:

Make foliar applications as pests begin to build before populations become extreme. Two applications at a 10- to 14- day interval may be required to achieve control. Scout and retreat if needed. Thorough uniform coverage of foliage is necessary for control. Addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's labeled use rate may improve coverage.

¹The amount of ROTAM 4F INSECTICIDE required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

Restrictions:

- Do not apply more than a total of 9.0 fluid ounces of ROTAM 4F INSECTICIDE per acre per year.
- Do not make more than 3 applications.
- Allow 10 or more days between applications.
- Allow at least 7 days between last application and harvest.

- Do not apply through any irrigation system.
[*Not registered for use in California.]

AVOCADO: around perimeter of industrial and commercial buildings and on residential areas	
Pests	Rate
Aphids Avocado lacebug Leafhoppers Whiteflies	0.75 fl. oz. per 100 gallons of water or 3.0 fl. oz./Acre ¹
Application Instructions: ¹ The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.	
Restrictions: <ul style="list-style-type: none"> • Follow application restrictions for Non-Agricultural Uses on page 4 to protect bees and other insect pollinators. • DO NOT apply more than a total of 3.0 fluid ounces per acre per year. • Allow at least 14 days between applications. • Allow at least 7 days between last application and harvest. • DO NOT apply through any irrigation system. • DO NOT apply pre-bloom or during bloom or when bees are foraging. • Keep children and pets off treated area until dry. 	

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.

Pesticide Disposal: Open dumping is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Disposal: Nonrefillable Container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling, or puncture and dispose of in a sanitary landfill, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Residue Removal: Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

SPILLS: For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. 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. You may contact the CHEMTREC Emergency Response for decontamination procedures.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC AT 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ROTAM AGROCHEMICAL COMPANY LIMITED or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ROTAM AGROCHEMICAL COMPANY LIMITED and Seller harmless for any claims relating to such factors.

ROTAM AGROCHEMICAL COMPANY LIMITED warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in

accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ROTAM AGROCHEMICAL COMPANY LIMITED, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM AGROCHEMICAL COMPANY LIMITED MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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