UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

August 17, 2018

William R. Berti, Ph.D.
Manager of Regulatory Affairs
Nichino America, Inc.
4550 Linden Hill Rd., Suite 501
Wilmington, DE 19808

Subject: PRIA Label Amendment – Adding chemigation application methods to corn and potatoes on the master and supplemental labels.
Product Name: NAI-2399-2 5EC Miticide/Insecticide
EPA Registration Number: 71711-40
Application Date: October 27, 2017
Decision Number: 535433

Dear Dr. Berti:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. 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.

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 Jennifer Gaines at 703-305-5967 or via email at gaines.jennifer@epa.gov.

Sincerely,

Elizabeth Fertich
Product Manager 04
Invertebrate & Vertebrate Branch 1
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

NICHINO AMERICA®

FENPYROXIMATE	GROUP	21A	INSECTICIDE

ACCEPTED
08/17/2018
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 71711-40

NAI-2399-2 5EC Miticide/Insecticide

ACTIVE INGREDIENT:
Fenpyroximate: Benzoic acid, 4-[[[(E)-[(1,3-dimethyl-5-phenoxy-1H-pyrazol-4-yl)methylene]amino]oxy]methyl]-,1,1-dimethylethyl ester 5.0%
OTHER INGREDIENTS*: 95.0%
TOTAL **100.0%**
Contains 0.40 lb. active ingredient per U.S. gallon
*Contains petroleum distillates

EPA Reg. No. 71711-40 **EPA Est. No. _____**

[Alternate Brand Names: Portal® XLO, FujiMite® XLO]

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

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	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If swallowed	• Immediately call a poison control center or doctor. • Do not give any liquid to the person. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product, including human health concerns and medical emergencies, call 1-800-348-5832. In case of fire or spills, information may be obtained by calling 1-800-424-9300.	
NOTE TO PHYSICIAN: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.	

Batch/Lot No.:_____ **NET CONTENTS: _____**

[Manufactured in ____,] [formulated in ____,] [and] [packaged in _____] for:
NICHINO AMERICA, INC.
4550 Linden Hill Road, Suite 501
Wilmington, DE 19808
888-740-7700

{Notes to Reviewer:
- This master label has no sub-labels but is divided into three sections including sections for Outdoor Food Crop Uses and for Greenhouse Food Crop and Ornamental (non-food crop) Uses.
- Optional text in [brackets]}

{Note to Reviewer: This language will be on the front panel of the booklet affixed to the container:}
See [inside] booklet for [First Aid,] [Precautionary Statements,] [and] [Directions for Use]

{Note to Reviewer: This language will be on the label permanently affixed to the container:}
See [inside] booklet for [First Aid,] [Precautionary Statements,] [and] [Directions for Use]

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
WARNING - AVISO

May be fatal if inhaled. Causes substantial but temporary eye injury. Harmful if swallowed. Avoid contact with skin or clothing. Do not breathe spray mist. Remove and wash contaminated clothing and wash before reuse. Do not get in eyes or on clothing. Wear protective eyewear (safety glasses, goggles, or face shield). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber, or Viton™).

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Some materials that are chemical-resistant to this product are listed below.
Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber, or Viton)
- Protective eyewear (such as safety glasses, goggles, or face shield)
- Shoes plus socks
- A NIOSH-approved particulate respirator, with any R or P filter with NIOSH approval prefix TC-84A.; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

STATEMENTS FOR CONTAMINATED PPE
Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

USER SAFETY RECOMMENDATIONS
Users should:

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

ENVIRONMENTAL HAZARDS
This pesticide is very highly toxic to fish and aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having medium to high potential for reaching both surface water and aquatic sediment via runoff for several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

Minimum Honey Bee Toxicity
Fenpyroximate is practically nontoxic to bees through acute contact and acute oral exposure when applied to listed crops according to the label directions.

DIRECTIONS FOR USE

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

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

ENDANGERED SPECIES PROTECTION REQUIREMENTS

This product may have effects on endangered species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult http://www.epa.gov/espp/ or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

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. For early entry into 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, wear:

- Coveralls
- Chemical-resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber, or Viton)
- Protective eyewear (such as safety glasses, goggles, or face shield)
- Shoes plus socks

PRODUCT INFORMATION

NAI-2399-2 5EC miticide/insecticide is used for the control of leafhoppers, mealybugs, mites, psylla, psyllids, and whiteflies. NAI-2399-2 5EC miticide/insecticide stops mite feeding immediately after application. NAI-2399-2 5EC miticide/insecticide controls all motile stages of mites by inhibiting cellular respiration in the mitochondrion of cells which results in rapid cessation of all biological activities including feeding and reproduction. Mortality of mites can be observed within 3-7 days after intoxication.

NAI-2399-2 5EC miticide/insecticide works primarily through contact action, so thorough spray coverage is necessary. Mix with sufficient water and apply as a foliar spray to obtain uniform coverage. Dense foliage or excessive growth will often prevent adequate coverage; adjust spray volumes accordingly. Treat plants when pests are immature or at a susceptible stage and populations are building, before crop damage occurs.

Target Species	
Apple rust mite*	Pacific spider mite
Asian citrus psyllid	Pear psylla
Avocado Brown mite	Pear rust mite
Banks grass mite	Pecan leaf scorch mite
Broad mite	Persea mite
Carmine mite	Plum nursery mite
Citricola scale	Potato leafhopper
Citrus bud mite	Powdery Mildew*
Citrus leafminer*	Six spotted mite
Citrus red mite	Strawberry spider mite
Citrus rust mite	Texas citrus mite
Citrus thrips*	Tomato (Potato) psyllid
Cyclamen mite	Tomato russet mite
European red mite	Two-spotted spider mite
Glassy-winged sharpshooter*	Variegated leafhopper
Grape leafhopper	White apple leafhopper
McDaniel mite	Whiteflies*
Mealybug species	Willamette spider mite
Mint bud mite	

***suppression**

APPLICATION DIRECTIONS

- Make applications immediately after the spray solution is prepared.
- Apply with properly calibrated spray equipment.
- Apply by ground or air using the water spray volume found in the **DIRECTIONS FOR USE** section of this label.
- Do not apply NAI-2399-2 5EC miticide/insecticide through any type of irrigation system except those described in the **CHEMIGATION** section.
- For aerial equipment, use larger droplet size (greater than 200 microns).
- Thorough spray coverage is essential for mite and insect control.
- For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor or state cooperative extension service for further information.

CHEMIGATION

For Chemigation Use On Field Corn, Popcorn, Silage Corn, Seed Corn; Potato

Apply this product alone or in combination with other products which are registered for application through irrigation systems.

- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of performance, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 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.

Chemigation Systems Connected to 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 flow outlet end of the fill pipe and the 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 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, 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

Sprinkler Chemigation

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

Chemigation Calibration and Application Instructions

Apply NAI-2399-2 5EC miticide/insecticide under the schedule specified in the **Field Corn, Popcorn, Silage Corn, Seed Corn; and Potato Use Directions**, not according to the irrigation schedule unless the events coincide.

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

Center Pivot Irrigation Equipment

Notes: (1) Use only drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating with NAI-2399-2 5EC miticide/insecticide to avoid non-uniform application. (3) Plug the first nozzle closest to the well head to protect the water source.

1. Determine the size of the area to be treated.
2. Determine the time required to apply ¼ - ½ inch water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer. Run the system at 80 - 95% of the manufacturer's rated maximum travel speed.
3. Using water, determine the injection pump output when operated at normal line pressure.
4. Determine the amount of NAI-2399-2 5EC miticide/insecticide, and any tankmix partners, required to treat the area covered by the irrigation system.
5. Add the required amount of NAI-2399-2 5EC miticide/insecticide, any tankmix partners, and sufficient water to meet the injection time requirements to the solution tank. (See **MIXING DIRECTIONS** section of this label).
6. Make sure the system is fully charged with water before starting injection of the NAI-2399-2 5EC miticide/insecticide solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
7. Maintain constant agitation in the solution tank during the injection period.
8. Inject the specified amount of NAI-2399-2 5EC miticide/insecticide per acre continuously for one complete revolution of the system.
9. Stop the injection equipment after treatment is completed. Continue to operate the system until the NAI-2399-2 5EC miticide/insecticide solution has cleared all the sprinkler heads.
10. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a continuous 20-40 minute time interval.
3. Determine the amount of NAI-2399-2 5EC miticide/insecticide required to treat the area covered by the irrigation system.
4. Add the required amount of NAI-2399-2 5EC miticide/insecticide, and any other tankmix partners, into the same quantity of water used to calibrate the injection period. (See **MIXING DIRECTIONS** section of this label).
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of NAI-2399-2 5EC miticide/insecticide per acre for: (1) a continuous 20-40 minute period at the end of a regular irrigation set, or, (2) as a continuous 20-40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the pesticide by the foliage.
7. Maintain constant agitation in the solution tank during the injection period.
8. Stop injection equipment after treatment is completed. Continue to operate the system until the NAI-2399-2 5EC miticide/insecticide solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

USE OF ADJUVANTS

When thorough coverage is a concern, use a spray adjuvant to maximize uniformity of coverage and performance of NAI-2399-2 5EC miticide/insecticide. Use a non-ionic activator type wetting, spreading or penetrating adjuvant or horticultural spray oil adjuvant. Do not use a dormant oil, or binder or sticker-type adjuvant. Use non-ionic adjuvants (NIS) containing at least 75% surfactant. Use crop oil concentrates (COC), methylated seed or vegetable oils (MSO), organosilicone products (OS), or blends of these adjuvants containing at least 15% emulsifier/surfactant. Check compatibility of any adjuvant used with NAI-2399-2 5EC miticide/insecticide before using. Follow the Directions for Use on each adjuvant product label for rates of use and use restrictions.

APPLICATION RESTRICTIONS

- Do not apply within 75 feet of fish-bearing waters.
- Use by air on citrus is limited to the states of Florida and Texas.
- [For aerial applications to citrus in the state of Florida, do not apply within 150 feet of any aquatic area.]
- Do not use products with the same mode of action in consecutive applications.
- Do not plant rotational crops other than those listed on this label for 30 days following the last application of this product.
- Do not apply by Alternate Row Middle (ARM) spray method.

RESISTANCE MANAGEMENT

For resistance management, NAI-2399-2 5EC miticide/insecticide contains a Group 21A miticide/ insecticide. Any insect/mite population may contain individuals naturally resistant to NAI-2399-2 5EC miticide/insecticide and other Group 21A insecticides/ acaricides. The resistant individuals may dominate the insect/mite population if this group of insecticides/ acaricides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/ acaricide resistance, take the following steps:

- Rotate the use of NAI-2399-2 5EC miticide/insecticide or other Group 21A insecticides/ acaricides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides/acaricides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
    - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
    - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
    - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
    - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
    - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- Report lack of performance to registrant or their representative.

MIXING DIRECTIONS

NAI-2399-2 5EC miticide/insecticide Alone: Shake well before using. Begin with clean equipment. Fill spray tank with ¾ of the amount of water needed for the intended application and then turn on agitation. Pour the product on the surface of water in the spray tank. Add the balance of the water to the spray tank

with agitation running. Keep agitation running during filling and spraying operations. If spraying must be stopped before emptying the sprayer, resume agitation before spraying the remainder of the load.

NAI-2399-2 5EC miticide/insecticide Tank Mixtures: Shake well before using. Read and follow all label directions for each tank mix product prior to any tank mixing with NAI-2399-2 5EC miticide/insecticide. This product can be mixed with other registered pesticides for use on labeled crops or sites, in accordance with the most restrictive use directions and precautions. Follow all use directions as listed above under NAI-2399-2 5EC miticide/insecticide alone with the following exception: after the NAI-2399-2 5EC miticide/insecticide is thoroughly mixed and the tank is ¾ full, add wettable powder, soluble powder, flowable, emulsifiable concentrate, or soluble liquid product as specified on their labels while maintaining agitation. Then continue adding water to the tank to achieve the desired level, while maintaining agitation.

If you have no experience with the combination you are considering, conduct a test to determine physical compatibility. To determine physical compatibility, add the proportions of each chemical with the proportion of water specified on the label as will be present in the chemical supply tank into a suitable container, mix thoroughly, and allow to stand for five minutes. If the combination remains mixed, or can be readily re-mixed, the mixture is considered physically compatible.

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.

SPRAY DRIFT ADVISORIES

- **THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.**
- **BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.**
- **IMPORTANCE OF DROPLET SIZE**
  An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. For all applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1 standard). While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

  Controlling Droplet Size - Ground Boom
  - Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
  - Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
  - Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

  [Controlling Droplet Size - Aircraft
  - Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.]
- **BOOM HEIGHT – Ground Boom**
  Apply with the nozzle height recommended by the manufacturer but no more than 3 feet above the ground or crop canopy. For ground equipment, the boom needs to be level with the crop and have minimal bounce.
- **[NOZZLE ORIENTATION - Aircraft**
  Nozzles must be oriented so the spray is directed toward the back of the aircraft. Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.]
- **[RELEASE HEIGHT - Aircraft**

Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety. Applications more than 10 feet above the vegetative canopy increases the potential for spray drift.]

- **[BOOM LENGTH - Aircraft**
  The boom length must not exceed 75% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters. Using shorter booms decreases drift potential. Applicators must use ½ swath displacement upwind at the downwind edge of the field for aerial applications and apply only when wind speed is 3 to 10 mph.]
- **SHIELDED SPRAYERS**
  Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- **WIND**
  To avoid spray drift, DO NOT apply when wind speed is greater than 10 mph. Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.
- **TEMPERATURE AND HUMIDITY**
  When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
- **TEMPERATURE INVERSIONS**
  To avoid spray drift, DO NOT apply during periods of temperature inversions. Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. 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 air mixing.
- **SENSITIVE AREAS**
  Only apply the pesticide when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).
- **AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS**
  Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

  Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment manual to determine if use of an air assisted sprayer is recommended.
- **AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS**
  Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management practices already described, the following specific practices will further reduce the potential for drift:
  - Adjust the 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 spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.

APPLICATION RATE CHART FOR NAI-2399-2 5EC MITICIDE/INSECTICIDE

Almonds and Pistachios (Use Permitted West of the Mississippi River Only)		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species)**	1.5 to 4.0 pints [(0.08 to 0.20 lb ai)]	**WEST OF THE MISSISSIPPI RIVER** • Apply by ground using a minimum of 100 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 14 days. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 8.0 pints [(0.40 lb ai)] per acre per growing season. • Do not make more than 2 applications per growing season.

Avocado, Black Sapote, Canistel, Mamey Sapote, Mango, Papaya, Sapodilla, and Star Apple		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) Whiteflies*	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by ground using a minimum of 95 gallons of water per acre. • Apply by air using a minimum of 50 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 1 day. USE RESTRICTIONS • Do not apply through any type of irrigation system • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per growing season. • Do not make more than 2 applications per growing season.
*suppression		

Berry, Low-Growing (Crop Subgroup 13-07G) excluding Cranberry
bearberry; bilberry; blueberry, lowbush; cloudberry; lingonberry; muntries; partridgeberry; strawberry; cultivars, varieties, and/or hybrids of these

Pest	Rate/Acre	Use Directions
Mites (see **Target Species**) Whiteflies*	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by ground application using a minimum of 25 gallons of water per acre. • When using an electro-static sprayer, less than 25 gallons of water per acre may be used; however, do not use less than 10 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 1 day. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.

*suppression
- Temporary pinking of immature green berries may be observed after a NAI-2399-2 5EC miticide/ insecticide application on certain strawberry varieties. This effect is transient and does not affect fruit sizing, color or quality.
- Avoid puddling of spray solution on plastic mulch as this can potentially result in underside scarring of fruit in direct contact with the plastic.

Citrus Fruits (Crop Group 10-10)
Australian desert lime; Australian finger lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; Mount White lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin, clementine); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these

Pest	Rate/Acre	Use Directions
Citrus rust mite[1]	4.0 pints [(0.20 lb ai)]	• Apply by ground using a minimum of 100 gallons of water per acre. For full size trees, use a minimum of 200 gallons of water per acre. • In Florida and Texas, apply by air using a minimum of 10 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 3 days. USE RESTRICTIONS • Do not apply by air except in Florida and Texas. • For aerial applications to citrus in Florida, do not apply within 150 feet of any aquatic area. • Do not apply through any type of irrigation system. • Do not apply to citrus nurseries or citrus in greenhouses. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per growing season. • Do not make more than 2 applications per growing season.
Asian citrus psyllid[2] Citrus leafminer* Citrus thrips* Leafhoppers Mealybugs Other Mites (see **Target Species**)	2.0 to 4.0 pints [(0.10 to 0.20 lb ai)]	

*suppression
[1] Control on citrus fruit limited up to 14 days.
[2] For best results, use for control of adults and nymphs present at time of application when newly expanding foliage flush is present.

<table>
<tr><th colspan="3">Cotton</th></tr>
<tr><th>Pest</th><th>Rate/Acre</th><th>Use Directions</th></tr>
<tr><td rowspan="2">Mites
(see Target Species)</td><td>Early season[1]
(when cotton is less than 10-inches in height)

0.4 to 1.0 pint[2]
[(0.02 to 0.05 lb ai)]</td><td rowspan="3">• Apply by ground using a minimum of 10 gallons of water per acre
• Apply by air using a minimum of 3 gallons of water per acre.
• As canopy density increases use of higher water volume will assure better coverage.
• Allow 14 days between applications.
• Preharvest Interval (PHI): 14 days.

USE RESTRICTIONS
• Do not apply through any type of irrigation system.
• Do not apply more than 2.0 pints [(0.10 lb ai)] per acre per growing season.
• Do not make more than 2 applications per growing season.</td></tr>
<tr><td>Mid-season
(when cotton is more than 10-inches in height)

1.0 to 2.0 pints
[(0.05 to 0.10 lb ai)]</td></tr>
<tr><td>Whiteflies*</td><td>2.0 pints
[(0.10 lb ai)]</td></tr>
<tr><td colspan="3">*suppression
[1] For early season use, when cotton is less than 10 inches in height, NAI-2399-2 5EC Miticide/insecticide may also be applied as a directed spray using ground spray equipment.
[[2] When applying by ground equipment apply as a directed spray for best results.]</td></tr>
</table>

<table>
<tr><th colspan="3">Cucumber</th></tr>
<tr><th>Pest</th><th>Rate/Acre</th><th>Use Directions</th></tr>
<tr><td>Mites
(see Target Species)

(Tomato) Potato Psyllid

Whiteflies*</td><td>1.0 to 2.0 pints
[(0.05 to 0.10 lb ai)]</td><td>• Apply by ground using a minimum of 40 gallons of water per acre.
• Apply by air using a minimum of 10 gallons of water per acre.
• Allow 14 days between applications.
• Preharvest Interval (PHI): 1 day.

USE RESTRICTIONS
• Do not apply through any type of irrigation system.
• Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle.
• Do not make more than 2 applications per crop cycle.</td></tr>
<tr><td colspan="3">*suppression</td></tr>
</table>

Field Corn, Popcorn, Silage Corn, Seed Corn (limited to States of [Arizona,] [California,] [Colorado,] [Hawaii,] [Kansas,] [New Mexico,] [Oklahoma,] [and] [Texas])		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**)	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by ground application using a minimum of 10 gallons of water per acre. • Apply by air using a minimum of 5 gallons of water per acre. • Apply by chemigation using a minimum of 0.1 to 0.2 acre-inches of water (see CHEMIGATION for additional information). • Allow 14 days between applications. • Preharvest Interval (PHI): 14 days for forage, silage, stover, and grain. USE RESTRICTIONS • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • [Do not apply less than 2.0 pints [(0.10 lb ai)] per acre unless corn is less than 48” in height, or when applying by ground.] • Do not make more than 2 applications per crop cycle.

Fruiting Vegetables (Crop Group 8-10) African eggplant; bush tomato; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; pepper, bell; pepper, nonbell; roselle; scarlet eggplant; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) Tomato/Potato Psyllid Whiteflies*	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 20 gallons of water per acre. • Apply air using a minimum of 5 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 1 day. USE RESTRICTIONS • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.
*Control on tomato in Florida only. Suppression only on all other crops.		

Hops*		
Pest	**Rate/ Acre**	**Use Directions**
Mites (see **Target Species**)	2.0 to 3.0 pints [(0.10 to 0.15 lb ai)]	• Apply by ground using a minimum of 100 gallons of water per acre. • Preharvest Interval (PHI): 15 days. • For best results, apply before mite populations exceed 5 mites per leaf. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 3.0 pints [(0.15 lb ai)] per acre per growing season. • Do not apply more than 1 application per growing season.
*__NOTE__: Leaf yellowing may occur when NAI-2399-2 5EC miticide/ insecticide is combined with spray oil in excess of 1% of the spray volume. If this symptom occurs, it is usually more pronounced on newly expanding leaves. This symptom may occur in plants under stress and is worsened by certain conditions including the following: • High Temperatures (air temperatures exceeding 90°F at the time of application or within a few days after application). • Wet soil conditions and high humidity (rainy, misty, or foggy weather within a few days after application). • Storm damage (including hail and wind).		

Melon (Crop Subgroup 9A)
muskmelon, including hybrids and/or varieties of *Cucumis melo* (including true cantaloupe, cantaloupe, casaba, Santa Claus melon, crenshaw melon, honeydew melon, honey balls, Persian melon, golden pershaw melon, mango melon, pineapple melon, snake melon); citron melon; and watermelon, including hybrids and/or varieties of (*Citrullus* spp.)

Pest	Rate/Acre	Use Directions
Mites (see **Target Species**) Whiteflies*	2.0 pints [(0.10 lb ai)]	• Apply by ground application using a minimum of 20 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 3 days. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.

*suppression

Mint (peppermint, spearmint)

Pest	Rate/Acre	Use Directions
Mites (see **Target Species**)	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by ground using a minimum of 25 gallons of water per acre. • Allow 7 days between applications. • Preharvest Interval (PHI): 1 day. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per growing season. • Do not make more than 2 applications per growing season.

Nonbearing Deciduous Fruit, Nut Trees, and Vines		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Mealybugs Mites (see **Target Species**)	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by ground using a minimum of 75 gallons of water per acre. • Allow 14 days between applications. USE RESTRICTIONS • Do not apply by air. • Do not apply to citrus nurseries or citrus in greenhouses. • Do not apply through any type of irrigation system. • Do not apply more than 2.0 [(0.10 lb ai)] pints per acre per growing season. • Do not make more than 2 applications per growing season. • Do not harvest edible crops for 12 months following application unless the crop is listed on the label.

Nonbearing Deciduous Fruit, Nut Trees, and Vines		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Mealybugs Mites (see **Target Species**)	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 75 gallons of water per acre. USE RESTRICTIONS • Do not apply by air. • Do not apply to citrus nurseries or citrus in greenhouses. • Do not apply through any type of irrigation system. • Do not apply more than 2.0 pints [(0.10 lb ai)] per acre per growing season. • Do not make more than 1 application per growing season. • Do not harvest edible crops for 12 months following application unless the crop is listed on the label.

Pome Fruits (Crop Group 11-10) apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Mealybugs Mites (see **Target Species)**	1.0 pint [(0.05 lb ai)]	• Apply by ground using a minimum of 100 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 14 days. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply by Alternate Row Middle (ARM) spray method. • Do not apply more than 2.0 pints [(0.10 lb ai)] per acre per growing season. • Do not make more than 2 applications per growing season.
Leafhoppers Mealybugs Mites (see **Target Species)** Pear psylla	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 100 gallons of water per acre. • Preharvest Interval (PHI): 14 days. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply by Alternate Row Middle (ARM) spray method. • Do not apply more than 2.0 pints [(0.10 lb ai)] per acre per growing season. • Do not make more than 1 application per growing season.

Potato		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) Potato psyllid Potato leafhopper	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 20 gallons of water per acre. • Apply by air using a minimum of 5 gallons of water per acre. • Apply by chemigation using a minimum of 0.10 to 0.25 acre-inches of water (see CHEMIGATION for additional information). • Allow 7 days between applications. • Preharvest Interval (PHI): 7 days. USE RESTRICTIONS • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.

Small Fruit Vine Climbing Subgroup - (Crop Subgroup 13-07F) (excluding fuzzy kiwifruit) Amur River grape; gooseberry; grape; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these		
Pest	**Rate/ Acre**	**Use Directions**
Mites (see **Target Species**) Mealybugs Powdery Mildew*	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 50 gallons of water per acre. • When using an electro-static sprayer, less than 50 gallons of water per acre may be used; however, do not use less than 5 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 14 days. • For vines with a heavy canopy, or in high pressure situations, use higher water volumes. If lower water volume amounts are used, tractor speed must be reduced to ensure complete coverage. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 2.0 pints [(0.10 lb ai)] per acre per growing season. • Do not make more than 2 applications per growing season.
Willamette spider mite	1.5 to 2.0 pints [(0.08 to 0.10 lb ai)]	
Leafhoppers	1.0 to 2.0 pints[1] [(0.05 to 0.10 lb ai)]	
*suppression [1]Use higher rate for dense foliage. Best control of leafhoppers is achieved by applications when majority of the population is in an immature development stage.		

Snap Bean		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) Whiteflies*	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 30 gallons of water per acre • Apply by air using a minimum of 5 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 1 day. USE RESTRICTIONS • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.
*suppression		

Stone Fruits (Crop Group 12-12) apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) Leafhoppers	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 80 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 7 days. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per year.

Tree Nuts (Crop Group 14) [Use Permitted West of the Mississippi River Only] excluding Almond and Pistachio beechnut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; walnut, black and English		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species)**	1.5 to 4.0 pints [(0.08 to 0.20 lb ai)]	**[WEST OF THE MISSISSIPPI RIVER]** • Apply by ground using a minimum of 100 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 14 days. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per growing season. • Do not make more than 2 applications per growing season.

Tree Nuts (Crop Group 14) plus Pistachio [Use Permitted East of the Mississippi River Only] almond; beechnut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; walnut, black and English		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species)**	2.0 pints [(0.10 lb ai)]	**[EAST OF THE MISSISSIPPI RIVER]** • Apply by ground using a minimum of 100 gallons of water per acre. • Preharvest Interval (PHI): 14 days. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply more than 2.0 pints [(0.10 lb ai)] per acre per growing season. • Do not make more than 1 application per growing season.

Tuberous and Corm Vegetables (Crop Subgroup 1C) except Potato arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; sweet potato; tanier; turmeric; yam bean; yam, true		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) Potato psyllid Potato leafhopper	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 20 gallons of water per acre. • Apply by air using a minimum of 5 gallons of water per acre. • Allow 7 days between applications. • Preharvest Interval (PHI): 7 days. USE RESTRICTIONS • Do not apply through any type of irrigation system. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.

Greenhouse Cucumber		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) (Tomato) Potato Psyllid Whiteflies*	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by ground using a minimum of 40 gallons of water per acre. • Preharvest Interval (PHI): 7 days. • Apply in sufficient water to obtain complete coverage of all plant parts. Make applications with high volume or low volume ground equipment only. Follow the spray equipment manufacturer's directions to determine the amount of spray solution required to obtain thorough coverage. Consult the spray equipment manufacturer's operator's manual, spray nozzle catalogs and/or your crop advisor for more information. USE RESTRICTIONS • Do not use products with the same mode of action in consecutive applications. • Do not apply through any type of irrigation system. • Do not apply in Ultra Low Volume Equipment. • Do not apply more than 2.0 pints [(0.10 lb ai)] per acre crop cycle. • Do not make more than 1 application per crop cycle.
*suppression		

Greenhouse Tomato		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species**) (Tomato) Potato Psyllid Whiteflies*	2.0 pints [(0.10 lb ai)]	• Apply by ground using a minimum of 100 gallons of water per acre. • Allow 14 days between applications. • Preharvest Interval (PHI): 1 day. • Apply in sufficient water to obtain complete coverage of all plant parts. Make applications with high volume or low volume ground equipment only. Follow the spray equipment manufacturer's directions to determine the amount of spray solution required to obtain thorough coverage. Consult the spray equipment manufacturer's operator's manual, spray nozzle catalogs and/or your crop advisor for more information. USE RESTRICTIONS • Do not use products with the same mode of action in consecutive applications. • Do not apply through any type of irrigation system. • Do not apply in Ultra Low Volume Equipment. • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per growing season. • Do not make more than 4 applications per year.
*suppression		

Ornamentals		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Mealybugs Mites (see **Target Species**)	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by ground using a minimum of 50 gallons of water per acre. • Allow 14 days between applications. USE RESTRICTIONS • Do not apply by air. • Do not apply through any type of irrigation system. • Do not apply to citrus nurseries or citrus in greenhouses. • Do not apply more than 2.0 pints [(0.10 lb ai)] per acre per growing season.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container, and keep tightly closed when not in use. Store in a cool, dry place inaccessible to children and pets.

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

CONTAINER HANDLING:
{Table C3: Label Review Manual for NONREFILLABLE PLASTIC containers}
{For liquid dilutables in containers small enough to shake (5 gallons or less)}
[Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.]

{Table C3: Label Review Manual for NONREFILLABLE PLASTIC containers}
{For any dilutable pesticide in containers too large to shake (larger than 5 gallons or 50 pounds)}
[Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. 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 a 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.]

IMPORTANT: READ BEFORE USE

By using this product, user or buyer accepts the following conditions, warranty, disclaimer of warranties and limitations of liability.

CONDITIONS: The directions for use of this product are believed to be accurate and must be followed carefully. However, because of extreme weather and soil conditions, use methods and other factors beyond the control of Nichino America, Inc. (NAI), it is impossible for NAI to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. To the extent consistent with applicable law, all such risks are assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of NAI is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, NAI disclaims any liability whatsoever for incidental or consequential damages, including, but not limited to, liability arising out of breach of contract, express or implied warranty (including warranties of merchantability and fitness for a particular purpose), tort, negligence, strict liability or otherwise.

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

SUPPLEMENTAL LABELING

FENPYROXIMATE	GROUP	21A	INSECTICIDE

[NAI-2399-2 5EC] [PORTAL® XLO] Miticide/Insecticide

EPA Reg. No. 71711-40

For Use On: **Field Corn, Popcorn, Silage Corn, Seed Corn**
Use Pattern: **Chemigation**
States: **[Arizona,] [California,] [Colorado,] [Hawaii,] [Kansas,] [New Mexico,] [Oklahoma,] [and] [Texas]**

This supplemental labeling expires August 16, 2021 and must not be used or distributed after this date.

DIRECTIONS FOR USE

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

This labeling and the EPA approved container label must be in the possession of the user at the time of application. Read the label affixed to the container for [NAI-2399-2 5EC] [PORTAL® XLO] miticide/insecticide before applying. Use of [NAI-2399-2 5EC] [PORTAL XLO] miticide/ insecticide according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for [NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide.

New use directions appear on this supplemental labeling that may be different from those that appear on the container label.

CHEMIGATION

For Use on Field Corn, Popcorn, Silage Corn, Seed Corn

Apply this product alone or in combination with other products which are registered for application through irrigation systems.

- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of performance, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 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.

Chemigation Systems Connected to 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 flow outlet end of the fill pipe and the 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 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, 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

Sprinkler Chemigation

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

Chemigation Calibration and Application Instructions
Apply **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** under the schedule specified in the **Field Corn, Popcorn, Silage Corn, Seed Corn Use Directions**, not according to the irrigation schedule unless the events coincide. The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

Center Pivot Irrigation Equipment
Notes: (1) Use only drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating with **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** to avoid non-uniform application. (3) Plug the first nozzle closest to the well head to protect the water source.
1. Determine the size of the area to be treated.
2. Determine the time required to apply ¼ - ½ inch water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer. Run the system at 80 - 95% of the manufacturer's rated maximum travel speed.
3. Using water, determine the injection pump output when operated at normal line pressure.
4. Determine the amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** and any tankmix partners required to treat the area covered by the irrigation system.
5. Add the required amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide**, any tankmix partners, and sufficient water to meet the injection time requirements to the solution tank. (See **MIXING DIRECTIONS** section on container label).
6. Make sure the system is fully charged with water before starting injection of the **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
7. Maintain constant agitation in the solution tank during the injection period.
8. Inject the specified amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** per acre continuously for one complete revolution of the system.
9. Stop the injection equipment after treatment is completed. Continue to operate the system until the [**NAI-2399-2 5EC] [PORTAL XLO]** miticide/ insecticide solution has cleared all the sprinkler heads.
10. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment
1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a continuous 20-40 minute time interval.
3. Determine the amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** required to treat the area covered by the irrigation system.
4. Add the required amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** and any other tankmix partners into the same quantity of water used to calibrate the injection period. (See **MIXING DIRECTIONS** section on container label).
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** per acre for: (1) a continuous 20-40 minute period at the end of a regular irrigation set or (2) as a continuous 20-40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the pesticide by the foliage.
7. Maintain constant agitation in the solution tank during the injection period.
8. Stop injection equipment after treatment is completed. Continue to operate the system until the [**NAI-2399-2 5EC] [PORTAL XLO] miticide/ insecticide** solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

APPLICATION RATE CHART

Field Corn, Popcorn, Silage Corn, Seed Corn (limited to the states of [Arizona,] [California,] [Colorado,] [Hawaii,] [Kansas,] [New Mexico,] [Oklahoma,] [and] [Texas])		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species** on the container label)	1.0 to 2.0 pints [(0.05 to 0.10 lb ai)]	• Apply by chemigation using a minimum of 0.10 to 0.25 acre-inches of water (see **CHEMIGATION** for additional information). • Allow 14 days between applications. • Preharvest Interval (PHI): 14 days for forage, silage, stover, and grain USE RESTRICTIONS • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.

NICHINO AMERICA®
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SUPPLEMENTAL LABELING

FENPYROXIMATE	GROUP	21A	INSECTICIDE

[NAI-2399-2 5EC] [PORTAL® XLO] Miticide/Insecticide

EPA Reg. No. 71711-40

For Use On: Potato
Use Pattern: Chemigation

ACCEPTED
08/17/2018
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 71711-40

This supplemental labeling expires August 16, 2021 and must not be used or distributed after this date.

DIRECTIONS FOR USE

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

This labeling and the EPA approved container label must be in the possession of the user at the time of application. Read the label affixed to the container for [NAI-2399-2 5EC] [PORTAL® XLO] miticide/insecticide before applying. Use of [NAI-2399-2 5EC] [PORTAL XLO] miticide/ insecticide according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for [NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide.

New use directions appear on this supplemental labeling that may be different from those that appear on the container label.

CHEMIGATION

For Use on Potato

Apply this product alone or in combination with other products which are registered for application through irrigation systems.

- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of performance, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 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.

Chemigation Systems Connected to 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 flow outlet end of the fill pipe and the 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 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, 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

Sprinkler Chemigation

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

Chemigation Calibration and Application Instructions
Apply **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** under the schedule specified in the **Potato Use Directions**, not according to the irrigation schedule unless the events coincide. The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

Center Pivot Irrigation Equipment
Notes: (1) Use only drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating with **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** to avoid non-uniform application. (3) Plug the first nozzle closest to the well head to protect the water source.

1. Determine the size of the area to be treated.
2. Determine the time required to apply ¼ - ½ inch water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer. Run the system at 80 - 95% of the manufacturer's rated maximum travel speed.
3. Using water, determine the injection pump output when operated at normal line pressure.
4. Determine the amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** and any tankmix partners required to treat the area covered by the irrigation system.
5. Add the required amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide**, any tankmix partners, and sufficient water to meet the injection time requirements to the solution tank. (See **MIXING DIRECTIONS** section on container label).
6. Make sure the system is fully charged with water before starting injection of the **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
7. Maintain constant agitation in the solution tank during the injection period.
8. Inject the specified amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** per acre continuously for one complete revolution of the system.
9. Stop the injection equipment after treatment is completed. Continue to operate the system until the **[NAI-2399-2 5EC] [PORTAL XLO] miticide/ insecticide** solution has cleared all the sprinkler heads.
10. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a continuous 20-40 minute time interval.
3. Determine the amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** required to treat the area covered by the irrigation system.
4. Add the required amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** and any other tankmix partners into the same quantity of water used to calibrate the injection period. (See **MIXING DIRECTIONS** section on container label).
5. Operate the system at the same pressure and time interval established during the calibration.
6. Inject specified amount of **[NAI-2399-2 5EC] [PORTAL XLO] miticide/insecticide** per acre for: (1) a continuous 20-40 minute period at the end of a regular irrigation set or (2) as a continuous 20-40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the pesticide by the foliage.
7. Maintain constant agitation in the solution tank during the injection period.
8. Stop injection equipment after treatment is completed. Continue to operate the system until the **[NAI-2399-2 5EC] [PORTAL XLO] miticide/ insecticide** solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

APPLICATION RATE CHART

Potato		
Pest	**Rate/Acre**	**Use Directions**
Mites (see **Target Species** on container label) Potato leafhopper Potato psyllid	2.0 pints [(0.10 lb ai)]	• Apply by chemigation using a minimum of 0.10 to 0.25 acre-inches of water (see **CHEMIGATION** for additional information). • Allow 7 days between applications. • Preharvest Interval (PHI): 7 days. USE RESTRICTIONS • Do not apply more than 4.0 pints [(0.20 lb ai)] per acre per crop cycle. • Do not make more than 2 applications per crop cycle.

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