71711-19 01/12/2007 1/18

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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Friday, January 12, 2007

Marie A. Maks, Senior Manager, Regulatory Affairs
Nichino America, Inc.
4550 New Linden Hill Road Suite 501
Wilmington, DE 19808

Subject: Application for Pesticide Registration Amendment to add Use on Citrus Fruits, Hops, Mint, Pistachio, and Tree Nuts
Petition #: PP# 5E6943
EPA Registration Numbers: 71711-18 and 71711-19
Product Names: Fenpyroximate Technical (71711-18) and Fuji 5EC Miticide/Insecticide (71711-19)
Date of Original Submissions: April 8, 2005 (petition) and April 28, 2005 amendment application (71711-19)
EPA Decision Numbers: D357046, D357042, D357048.

Dear Ms. Maks;

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable subject to the comments listed below.

1. The following confirmatory data requirements are required as discussed in the Agency's Health Effects Division (HED) Risk Assessment dated May 26, 2006 (copy enclosed).

   - **860.1340 Residue Analytical Method - Plant Commodities**
     The available enforcement analytical method data should be upgraded to support the expanded uses of fenpyroximate proposed under the current petition. The method should be rewritten to include instructions for the analysis of mint tops, mint oil, and tree nut commodities.
     The requirement for an interference study demonstrating the specificity of Method S19, or a very specific confirmatory method (e.g., use of MS detection) remains outstanding. The petitioner should note that if an interference study is submitted in lieu of amending the method to include confirmatory analysis procedures, the interference study should include all pesticides registered for use on citrus fruit, cotton, grape, hop, mint, pome fruit, and tree nuts.
     The enforcement analytical method and the modified versions used for data collection determined residues of fenpyroximate and its Z-isomer separately in all matrices except mint and mint oil. The petitioner has noted that due to the potential for isomerization between fenpyroximate and its Z-isomer in some crop commodities, both isomers should be determined and then combined to report total fenpyroximate residues. Although the method used for mint did not differ significantly in procedure from the original enforcement analytical method, the petitioner stated that for analysis of mint commodities, fenpyroximate was completely converted to the Z-isomer in the injector area of the gas chromatograph; representative chromatograms confirmed the presence of a single peak in samples. Nichino America, Inc. should provide further explanation for this observation, addressing whether complete conversion to the Z isomer is specific to mint commodities or was the result of the instrument conditions used for analysis of mint samples.

   - **860.1340 Residue Analytical Method - Livestock Commodities**
     The proposed livestock enforcement method needs to pass a PMV by Agency chemists before the method can be deemed adequate for tolerance enforcement.

- **860.1380 Storage Stability**
  Additional data are required depicting the stability of residues of fenpyroximate and its Z-isomer in/on oranges for up to 18 months of frozen storage and in orange oil and dried pulp for up to 15.5 months of frozen storage.

- **860.1500 Crop Field Trials**
  The number and location of field trials from both sets of citrus field trials (1994-1995 and 2001-2002) together are insufficient to satisfy geographic representation requirements because two additional field trials are required for oranges. Moreover, the citrus field trials were conducted using two different formulation types (Akari® 5SC Miticide - Insecticide, EPA Reg. No. 71711-4 and FujiMite® 5 EC Miticide/Insecticide; EPA Reg. No. 71711-19). Nichino America, Inc. has not conducted the full number of requested trials for either formulation. The Agency typically does not permit translation of data between formulations for late season foliar applications, which is the proposed use pattern to citrus.
  To confirm that the combined results of the two sets of trials may be used to support geographic data requirements for the citrus fruit crop group, Nichino America, Inc. should conduct side-by-side trials reflecting application of the 0.4 lb/gal Akari® 5SC Miticide - Insecticide, EPA Reg. No. 71711-4 and the 0.4 lb/gal FujiMite® 5 EC Miticide/Insecticide; EPA Reg. No. 71711-19 formulation. Nichino America, Inc. should conduct at least two side-by-side trials on oranges in Regions 3 and 10 to fulfill geographic representation requirements. In addition, one side-by-side trial each should be conducted on lemon and grapefruit in Region 3 or 10. If the results of these trials indicate that application of one formulation results in higher residues, then additional field trials may be required. Additional storage stability data as specified under OPPTS 860.1380 are also required to support the submitted 1994-1995 field trial results.
  Two additional field trials conducted in Region 5 are required to satisfy geographic data requirements for mint. The petitioner has indicated that the required trials were initiated in 2004.

- **860.1520 Processed Food and Feed**
  Method validation data should be submitted for orange oil reflecting fortification levels of 5 ppm and 30 ppm fenpyroximate.
  Additional details of the processing procedure, and confirmation that the simulated commercial processing procedures; should be provided for the mint processing study.

2. The following data requirements are required as discussed in the Agency's Environmental Fate and Effects Division (EFED) Risk Assessments dated October 2, 2003 and September 6, 2006 (copies enclosed).

   - **Estuarine Fish Early Life-Stage (72-4(b)):** The estuarine/marine fish early life-stage test (guideline 72-4) using the TGAI of fenpyroximate is a data gap. The study is requested for the following reasons:
     a) The pesticide is expected to be transported to water from the intended use site.
     b) The pesticide is intended for use such that its presence in water is likely to be continuous or recurrent.
     c) The preferred test species is the sheepshead minnow (*Cyprinodon variegatus*).
   - **Estuarine Invertebrate Life-Cycle (72-4(c)):** The estuarine/marine aquatic invertebrate life-cycle test (guideline 72-4) using the TGAI of fenpyroximate is a data gap. The study is needed for the following reasons:
     a) The pesticide is expected to be transported to water from the intended use site.
     b) The pesticide is intended for use such that its presence in water is likely to be continuous or recurrent.
     c) Fenpyroximate and M-1 are expected to accumulate in sediments where invertebrates live and feed.
     d) FIFRA guidelines require the estuarine/marine aquatic invertebrate life-cycle test for any pesticide if the aquatic acute LC_{50} or EC_{50} is less than 1 ppm. The acute LC_{50} for the mysid (*Americamysis bahia*) is 3.7 ppb (MRID 45649804).
     e) The preferred test species is the Mysid (*Americamysis bahia*).

- **Aquatic Acute Sediment Toxicity Testing (850.1790):** The aquatic acute sediment toxicity testing using the TGAI of fenpyroximate is a data gap. The submitted study for *Chironomus riparius* was classified **INVALID**. The study is requested for the following reasons:

  a) The pesticide is intended for use such that its presence in water is likely to be continuous or recurrent.
  b) The compound is persistent in the aquatic environment and tends to bind to sediment (Kd is 75-1365).
  c) In the aerobic aquatic metabolism study, fenpyroximate concentrations decreased in the water and increased in the sediment over time.
  d) Fenpyroximate is highly toxic to freshwater fish and invertebrates.

- **Estuarine/Marine Fish AcuteLC_{50} (72-3(a)):** The estuarine/marine fish acute LC_{50} test (guideline 72-3(a)) with the sheepshead minnow (*Cyprinodon variegatus*) using the TGAI of fenpyroximate is a data gap. The submitted study was classified **INVALID.**

- **Estuarine/Marine Mollusc EC_{50} (72-3(b)):** The estuarine/marine mollusk EC_{50} test (guideline 72-3(b)) with the Eastern oyster (*Crassostrea virginica*) using the TGAI of fenpyroximate is a data gap. The submitted study was classified **INVALID**.

- **Avian Chronic Reproduction (71-4):** The avian chronic reproduction tests (guideline 72-4) with Northern bobwhite and mallard duck using the TGAI of fenpyroximate are data gaps. The studies were found to be **SUPPLEMENTAL** for the following reasons:
  a) The avian chronic toxicity test with Northern bobwhite quail (*Colinus virginianus*) is classified supplemental because a NOAEC could not be determined (MRID No. 45649719).
  b) The avian chronic toxicity test with mallard duck (*Anas platyrhynchos*) is classified supplemental because the mallard ducks used in this study were 51 weeks old and began laying eggs as soon as 3 weeks into the study (MRID No. 45649718).
  c) Therefore, there is uncertainty in the data supplied by these toxicity tests.
  d) Additional data may make the studies up-gradable. If appropriate data is not supplied, the studies must be conducted to fully satisfy the requirement.
  e) There is a need to assess the chronic risk of fenpyroximate to birds because fenpyroximate sorbs to and accumulates in soil.
  f) The chronic toxicity study is needed further to more precisely assess the risk of bioaccumulation of fenpyroximate in piscivorous avian species.

- **Freshwater Fish Acute LC_{50} (TEP) (72-1(b)):** The freshwater fish acute LC50 test (guideline 72-1(b)) with the rainbow trout using the TEP of fenpyroximate is a data gap. The study was found to be **SUPPLEMENTAL** for the following reasons:
  a) The acute toxicity test with 5.1 % a.i. with rainbow trout (*Oncorhynchus mykiss*) is classified supplemental because the fish weight range was less than the required initial weight range of 0.5 to 5 g (MRID No. 45649803).
  b) Therefore, there is uncertainty in the data supplied by this toxicity test.
  c) Additional data may make the study upgradeable. If appropriate data is not supplied, the study must be conducted to fully satisfy the requirement.

- **Freshwater Fish Chronic (NOAEC) (72-5)**: Since fenpyroximate, M-1 sorb tightly to soil and sediments as well as some M-3, the potential for chronic exposure to adult fish and their eggs exists. Fish lay eggs in and eat organisms that live in sediments where fenpyroximate, M-1, and M-3 are expected to accumulate.

- **Leaching-Adsorption-Desorption (Guideline 163-1).** Degradates M-8 and M-11. Leaching-adsorption-desorption data on the metabolites M-8 and M-11 are required for fenpyroximate because they were formed in significant quantities in the environmental fate studies. M-8 was a major degradate in aerobic soil and aquatic metabolism (aerobic and anaerobic) laboratory studies and was found in the water phase when water was present. M-11 was a minor degradate in aerobic soil and a major degradate in aquatic metabolism (aerobic and anaerobic) studies where it was found predominantly in water instead of soil.

- **Aerobic Aquatic Metabolism-(M-3)**. Inadequate data on the dissipation of M-3 were submitted. M-3 was apparently formed but not detected in the submitted study.

- No sediment toxicity data for a benthic invertebrate that filters or ingests sediments were submitted or found in the open literature.

- No foliar dissipation studies were supplied by the registrant. Therefore, the default assumption foliar half-life of 35 days was used to calculate fenpyroximate residue concentrations on terrestrial food items.

3. Before any shipment of product under this conditionally approved draft label, Nichino America, Inc. must provide documentation when the Agency can expect to receive acceptable data to redress the confirmatory data deficiencies outlined above. The documentation provided by Nichino America, Inc. should identify anticipated start dates and projected completion dates for each of the above data requirements. In addition, studies that require time in excess of 1 year of the date of this conditional letter for completion and submission to the Agency must be supplemented with an annual study progress report within 1 year of the date of this stamped approved Conditional Letter of Approval (page 1).

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes full acceptance of these conditions.

A stamped copy of the "Accepted with Comments" draft label is enclosed for your records. Submit two copies of the revised final printed label for the record.

Sincerely,

Richard J. Gebken
Product Manager 10
Insecticide Branch
Registration Division (7505C)

Enclosures

5/18

Nichino America, Inc.

ACCEPTED
with COMMENTS
In EPA Letter Dated:
JAN 12 2007
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 71711-19

FujiMite® 5EC

MITICIDE/INSECTICIDE

Alternate Brand: Portal™

ACTIVE INGREDIENT:

Tert-butyl(E)-α-(1,3-dimethyl-5-phenoxypyrazol-4-ylmethyleneaminoxy)-p-toluate	5.0%
OTHER INGREDIENTS*:	95.0%
TOTAL	**100.0%**

Contains 0.4 lb. active ingredient per U.S. gallon
*Contains petroleum distillates

EPA Reg. No. 71711-19
EPA Est. No.

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 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 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 swallowed	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	• 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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-348-5832 for emergency medical treatment information. 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. Probable mucosal damage may contraindicate the use of gastric lavage.

For product information, use internet website: www.nichino.net

NET CONTENTS: _____

Active Ingredient Made in Japan; Formulated and Packaged in U.S.A
NICHINO AMERICA, INC.
4550 New Linden Hill Rd., Suite 501
Wilmington, DE 19808
www.nichino.net

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING - AVISO

Causes substantial but temporary eye injury. Harmful if inhaled or swallowed. Do not get in eyes, or on clothing. Avoid contact with skin and breathing spray mist.

Wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves (such as barrier laminate or viton). Wear protective eyewear (safety glasses, goggles, or face shield).

Personal Protective Equipment

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves (such as barrier laminate or viton)
- Protective eyewear (such as safety glasses, goggles, or face shield)
- Shoes plus socks
- For overhead exposure, wear chemical resistant headgear

When mixing and loading, wear a chemical-resistant apron. When cleaning equipment, wear a chemical-resistant apron.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. 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 [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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
- Remove and wash contaminated clothing before reuse.

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 chemical can contaminate surface water through spray applications. Under some conditions, it may also have a high potential for runoff into surface water after application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

ENDANGERED SPECIES RESTRICTIONS

This product may pose a hazard to endangered aquatic species. Leave a 75 feet untreated buffer between treatment area and fish-bearing waters. Follow all use directions.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

Minimum Honey Bee Toxicity

Applications to all crops may be made at anytime. Fenpyroximate is practically nontoxic to bees and wasps.

DIRECTIONS FOR USE

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

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

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 worn over short-sleeved shirt and short pants.
- Socks
- Chemical-resistant footwear
- Protective eyewear (such as safety glasses, goggles, or face shield)
- Chemical-resistant gloves (such as barrier laminate or viton)

GENERAL INFORMATION

FujiMite® 5EC is a contact miticide used for the control of leafhoppers, mealybugs, mites, or psylla. This product should be used in a rotational program with other products to provide resistance management. Apply as a spray as directed in the "Application Directions" section of this label. **FujiMite 5EC** is a 5% Emulsifiable Concentrate which contains 0.40 lb fenpyroximate per gallon.

FujiMite 5EC works primarily through contact action, so good 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.

FujiMite 5EC stops mite damage immediately after application. **FujiMite 5EC** provides this stop-feeding action together with a cessation of egg laying, and mites die in 3 to 7 days.

Target Species	
Apple rust mite (suppression only)	Pacific spider mite
Asian citrus psyllid	
Broad mite	Pear psylla
Citrus red mite	Strawberry spider mite
Citrus rust mite	Texas citrus mite
European red mite	Two-spotted spider mite
Glassy-winged sharpshooter (suppression only)	White apple leafhopper
Grape leafhopper	Willamette spider mite
McDaniel mite	Variegated leafhopper
Mealybug species	

APPLICATION DIRECTIONS

Applications should be made immediately after the spray solution is prepared. Thorough spray coverage is essential for mite control. Applications may be made with high or low volume spray equipment that provides thorough coverage of the plant. Apply with properly calibrated spray equipment. ~~Addition of a spray adjuvant at a rate not to exceed the adjuvant manufacturer's recommended use rate may improve coverage.~~

APPLICATION RESTRICTIONS

- Do not apply by air or chemigation.
- Do not apply within 75 feet of all aquatic areas by ground boom and airblast applications.
- Do not apply **FujiMite 5EC** on cotton east of the Mississippi River.
- Do not plant rotational crops other than those listed on this label for 30 days following the last application of this product.

MIXING DIRECTIONS

Shake well before using. Read and follow all label directions for each tankmix product prior to any tank mixing with **FujiMite 5EC**. Begin with clean equipment. Prepare only the amount of spray solution needed to treat the target area. Add sufficient clean water to the spray tank for one-half of the mix load. Where possible, start agitation and properly suspend the necessary amount of **FujiMite 5EC** in the tank. Agitate to ensure thorough mixing while adding the remaining required water volume and other products. **FujiMite 5EC** should be properly suspended and diluted prior application. Follow normal agricultural spray practices for the crop being treated. Maintain agitation during mixing and application. If agitation is stopped for any reason, the spray solution must be thoroughly remixed prior to further use.

Read and follow all label directions for each tankmix product. Always use in accordance with the most restrictive of label precautions and limitations.

RESISTANCE MANAGEMENT

Repeated use of the same chemistry has been shown to result in the buildup of resistant strains of mites or other insects. DO NOT use **FujiMite 5EC** in successive miticide applications. Rotate the use of **FujiMite 5EC** with alternate mode of action insecticides:

- miticides must be rotated with alternate products **for resistance management**
- avoid using products with same mode of action; for example, **FujiMite 5EC** and Pyramite™ /Nexter (pyridaben) are both METI-2 inhibitors and should not be rotated with each other

Consult your local crop advisor for the most appropriate alternative products. Resistance management strategies recommend that you DO NOT apply rates lower than recommended on the label. For best results, do not make more than one application of **FujiMite 5EC** in a single growing season.

SPRAY DRIFT MANAGEMENT

Do not allow this product to drift onto nontarget areas. Do not apply when weather conditions may cause drift. Use of larger droplet size will also reduce spray drift.

The interaction of many equipment and weather related factors determines 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.**

Controlling Droplet Size – General Techniques:

Volume

Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure

Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.

Nozzle Type

Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Height

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light and variable winds common during inversions. 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 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

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

Shielded Sprayers
Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with the uniform deposition of the product.

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 section of this label 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.

CROPS

Citrus (calamondin, citrus citron, citrus hybrids (including chironja, tangelo, tangor), grapefruit, kumquat, lemon, lime, mandarin (tangerine), sour orange, sweet orange, pummelo, satsuma mandarin)

Apply **FujiMite 5EC** using ground or airblast (air assist) sprayer equipment in 100 to 400 gallons of water per acre to ensure uniform, adequate coverage. Use the higher spray volume to provide adequate coverage in larger trees with dense foliage. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

	Pests	Rate per acre	Use Restrictions
West of the Mississippi River	Citrus Rust Mite Asian Citrus psyllid	4 pints	• Do not apply more than 8 pints per acre per season. • Do not make more than 2 applications per season. • Do not apply within 14 days of harvest. • Allow 14 days between applications. • Do not apply by air.
	Other Mites (see **Target Species**) Leafhoppers Mealybugs	1 to 4 pints[1]	

	Pests	Rate per acre	Use Restrictions
East of the Mississippi River	Citrus Rust Mite Asian Citrus psyllid	4 pints	• Do not apply more than 4 pints per acre per season. • Do not make more than 1 application per season. • Do not apply within 14 days of harvest. • Do not apply by air.
	Other Mites (see **Target Species**) Leafhoppers Mealybugs	1 to 4 pints[1]	

[1] For smaller canopy orchards requiring less water for full coverage spray, the rate of product applied per acre may be reduced according to the total spray volume applied per acre. Maintain a final spray concentration of no less than 2 pints per 200 gallons of water. For concentrate spray applications, use this same guide for determining the rate of product per acre.

Cotton (Use Limited to West of the Mississippi River)

Apply **FujiMite 5EC** using ground spray equipment in 10 to 40 gallons of water per acre to ensure uniform, adequate coverage. For early season use, when cotton is under 10 inches in height, apply in a directed spray using ground spray equipment. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

- Apply as a broadcast or directed spray using sufficient water for thorough coverage adjusted for plant size and density.

Pest	Rate per acre	Spray Volume	Use Restrictions
Mites (see **Target Species**)	**Early season** (less than 10 inches in height) 0.25 to 1 pint	Minimum 10 gallons per acre	• Do not apply within 14 days of harvest. • Do not apply more than 2 pints per acre per season. • Do not use less than 1 pint per treated acre. • Do not make more than 2 applications per season. • Do not apply through any type of irrigation system.
	Mid-season (more than 10 inches in height) 2 pints		

Grapes

Apply **FujiMite 5EC** in 50 to 200 gallons of water per acre using ground spray equipment. Use the higher spray volume in mature vineyards with dense foliage to ensure adequate coverage. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

Pest	Rate per acre	Use Restrictions
Mealybugs Mites (see **Target Species**)	2 pints	• Do not apply within 14 days of harvest. • Do not apply more than 2 pints per acre per season. • Do not make more than 2 applications per season. • Do not apply through any type of irrigation system.
Leafhoppers (see **Target Species**)	1 – 2 pints [1]	

[1] Use higher rate for dense foliage requiring high spray volume. Best control of leafhoppers is achieved by applications when majority of the population is in an immature development stage.

HOPS

For best results, apply before mite populations exceed 5 mites per leaf. For treatments when there is less than a full canopy of growth, the total amount of **FujiMite 5EC** used per acre may be reduced according to the percentage of canopy sprayed compared to the normal full canopy. Do not use less than two pints **FujiMite 5EC** per acre on hops that have grown to full height.

RECOMMENDED APPLICATION RATES FOR FUJIMITE 5EC ON HOPS

Pest	Application Rate Per Acre	Specific Use Directions and Restrictions
Mites (see Target Species)	2 to 3 pints (32 - 48 fl oz) (0.1–0.15 lb ai)	• Use in sufficient volume to obtain uniform plant coverage using properly calibrated high or low volume spray equipment. • Spray concentrations above 100 ppm are recommended with full coverage high volume spray equipment. • Do not apply within 15 days of harvest. • Do not make more than 1 application per season. • Do not exceed 48 fluid ounces of product per acre per season. • Do not apply this product by air or through any type of irrigation system. Applications may be made using ground equipment only. • Do not make subsequent applications without rotating to at least two other miticide products between applications.

The following table is a guide to assist in calculating the appropriate spray concentration:

Amount of FujiMite 5EC for 100 ppm Spray Concentration	
Spray Volume per Acre	Pints FujiMite 5EC
75	1.2
100	1.6
125	2.0
150	2.4
188	3.0

WARNING

Leaf yellowing may occur when **FujiMite 5EC** 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)

Mint (peppermint, spearmint)

Apply **FujiMite 5EC** using ground or airblast (air assist) sprayer equipment in a minimum of 25 to 50 gallons of water per acre to ensure uniform, adequate coverage. Use the higher spray volume to provide adequate coverage in dense foliage. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

Pests	Rate per acre	Use Restrictions
Mites (see **Target Species**)	1 to 2 pints	• Do not apply more than 2 pints per acre per season. • Do not make more than 1 application per season. • Do not apply within 1 day of harvest. • Do not apply by air.

Nonbearing Deciduous Fruit and Nut Trees and Vines

Apply **FujiMite 5EC** using ground or airblast (air assist) sprayer equipment in 100 to 200 gallons of water per acre to ensure uniform, adequate coverage. Use the higher spray volume to provide adequate coverage in larger trees with dense foliage. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

Pests	Rate per acre	Use Restrictions
Leafhoppers Mealybugs Mites (see **Target Species**)	1 to 2 pints[1]	• Do not harvest edible crops for 12 months following application. • Do not apply more than 2 pints per acre per season. • Do not make more than 2 applications per season. • Do not apply through any type of irrigation system.
Pear psylla	2 pints[2]	

[1] Full coverage dilute spray rate is based on 2 pints per 200 gallons water per acre. For smaller canopy orchards requiring less water for full coverage spray, the rate of product applied per acre may be reduced according to the total spray volume applied per acre. Maintain a final spray concentration of no less than 2 pints per 200 gallons of water. For concentrate spray applications use this same guide for determining the rate of product per acre. Example: For orchards requiring 100 gallons water for full coverage dilute spray, 1 pint per acre may be used for either dilute or concentrate spray applications.

[2] For control of pear psylla, use 2 pints per acre, applied in a maximum of 200 gallons of water per acre. Do not apply less than 2 pints FujiMite 5EC per acre and use adequate spray volume of water per acre to achieve full coverage.

Ornamentals

Apply **FujiMite 5EC** in 50 to 200 gallons of water per acre using ground spray equipment to ensure uniform, adequate coverage. Use the higher spray volumes in nurseries or on plants with dense foliage to ensure adequate coverage. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

Pest	Rate per acre	Use Restrictions
Leafhoppers Mealybugs Mites (see **Target Species**)	2 pints	• Do not apply more than 2 pints per acre per season. • Do not apply more than 2 applications per season. • Do not apply through any type of irrigation system.

Pome Fruit (apple, pear, crabapple, loquat, mayhaw, medlar, quince)

Apply **FujiMite 5EC** in 100 to 200 gallons of water per acre using ground sprayer or airblast (air assist) spray equipment. Applications may also be made using concentrate spray equipment (see note below).Use the higher spray volume to provide adequate coverage in larger trees with dense foliage. Applications may be made from petal fall up to 14 days before harvest to control motile and mature stages of mites, leafhoppers, or psylla. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

Pests	Rate per acre	Use Restrictions
Leafhoppers Mealybugs Mites (see **Target Species**)	1 to 2 pints[1]	• Do not apply within 14 days of harvest. • Do not apply more than 2 pints per acre per season. • Do not make more than 2 applications per season. • Do not apply through any type of irrigation system.
Pear psylla	2 pints[2]	

[1] Full coverage dilute spray rate is based on 2 pints per 200 gallons water per acre. For smaller canopy orchards requiring less water for full coverage spray, the rate of product applied per acre may be reduced according to the total spray volume applied per acre. Maintain a final spray concentration of no less than 2 pints per 200 gallons of water. For concentrate spray applications use this same guide for determining the rate of product per acre. Example: For orchards requiring 100 gallons water for full coverage dilute spray, 1 pint per acre may be used for either dilute or concentrate spray applications.

[2] For control of pear psylla, use 2 pints per acre, applied in a maximum of 200 gallons of water per acre. Do not apply less than 2 pints FujiMite 5EC per acre and use adequate spray volume of water per acre to achieve full coverage.

Tree Nuts (almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert, hickory nut, macadamia nut, pecans, pistachio, and black and English walnut)
Apply **FujiMite 5EC** using ground or airblast (air assist) sprayer equipment in 100 to 200 gallons of water per acre to ensure uniform, adequate coverage. Use the higher spray volume to provide adequate coverage in larger trees with dense foliage. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

Crop	Pests	Rate per acre	Use Restrictions
Almonds and Pistachios (west of Mississippi River)	Mites (see **Target Species**)	1 to 4 pints[1]	• Do not apply more than 8 pints per acre per season. • Do not make more than 2 applications per season. • Allow 14 days between applications. • Do not apply within 14 days of harvest. • Do not apply by air.
Nuts, excluding almonds and pistachios (west of Mississippi River)	Mites (see **Target Species**)	1 to 4 pints[1]	• Do not apply more than 4 pints per acre per season. • Do not make more than 1 application per season. • Do not apply within 14 days of harvest. • Do not apply by air.
Tree Nuts (east of Mississippi River)	Mites (see **Target Species**)	1 to 2 pints[1]	• Do not apply more than 2 pints per acre per season. • Do not make more than 1 application per season. • Do not apply within 14 days of harvest. • Do not apply by air.

[1]Full coverage dilute spray rate is based on 2 pints per 100 gallons water per acre. For smaller canopy orchards requiring less water for full coverage spray, the rate of product applied per acre may be reduced according to the total spray volume applied per acre. Maintain a final spray concentration of no less than 2 pints per 100 gallons of water. For concentrate spray applications use this same guide for determining the rate of product per acre.

Nichino America, Inc.

STORAGE AND DISPOSAL

STORAGE: Store in a cool, dry place.
PESTICIDE DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Triple rinse, or equivalent. Then offer for recycling or reconditioning, or puncture and dispose if in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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 should 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. All such risks are assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: 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. 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: 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.

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SUPPLEMENTAL LABEL

NICHINO AMERICA, INC.

FUJIMITE® 5EC Miticide/Insecticide

For Use on Tree Nuts (almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert, hickory nut, macadamia nut, pecans, pistachio, and black and English walnut)
(Limited to the State of California)

EPA Reg. No. 71711-19

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.

New crops appear on this supplemental labeling that do not appear on the Section 3 container label.

NOTICE: Before using this product, read the First Aid, Precautionary Statements, Conditions of Sale and Warranty, and complete Directions for Use found on the container labeling. All applicable directions, restrictions, and precautions on the EPA registered label are to be followed.

Tree Nuts (almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert, hickory nut, macadamia nut, pecans, pistachio, and black and English walnut)
Apply **FujiMite 5EC** using ground or airblast (air assist) sprayer equipment in 100 to 200 gallons of water per acre to ensure uniform, adequate coverage. Use the higher spray volume to provide adequate coverage in larger trees with dense foliage. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor, state cooperative extension service, or regional Nichino America representative for further information.

Crop	Pests	Rate per acre	Use Restrictions
Almonds and Pistachios	Mites	1 to 4 pints[1]	• Do not apply more than 8 pints per acre per season. • Do not make more than 2 applications per season. • Allow 14 days between applications. • Do not apply within 14 days of harvest. • Do not apply by air.
Nuts, excluding almonds and pistachios	Mites	1 to 4 pints[1]	• Do not apply more than 4 pints per acre per season. • Do not make more than 1 application per season. • Do not apply within 14 days of harvest. • Do not apply by air.

[1]Full coverage dilute spray rate is based on 2 pints per 100 gallons water per acre. For smaller canopy orchards requiring less water for full coverage spray, the rate of product applied per acre may be reduced according to the total spray volume applied per acre. Maintain a final spray concentration of no less than 2 pints per 100 gallons of water For concentrate spray applications use this same guide for determining the rate of product per acre.

ACCEPTED
with COMMENTS
In EPA Letter Dated:
JAN 12 2007

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 71711-19

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