UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

September 13, 2019

Christina M. Dubas
Regulatory Affairs Manager
Nichino America, Inc.
4550 Linden Hill Rd.
Wilmington, DE 19808

Subject: PRIA Label Amendment – New Uses: Fig and Greenhouse Peppers; Multiple Crop Group Expansions and Crop Conversions
Product Name: Buprofezin 40SC
EPA Registration Number: 71711-20
Application Date: December 22, 2017
Decision Number: 537580; 537581

Dear Ms. Dubas:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5). You must submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

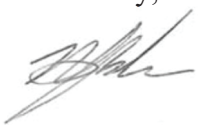
A stamped copy of your labeling is attached for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute 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.

SEE NEXT PAGE

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 Debra Rate by phone at (703) 306-0309, or via email at rate.debra@epa.gov.

Sincerely,



Michael Walsh
Product Manager 11
Invertebrate & Vertebrate Branch 2
Registration Division

Attachment

{Sub-label A: Crop-Use}

NICHINO AMERICA

BUPROFEZIN	GROUP	16	INSECTICIDE

BUPROFEZIN 40SC

ACTIVE INGREDIENT:

Buprofezin: [2-tert-butylimino-3-isopropyl-5-phenyl-1,3,5-thiadiazinan-4-one]…..……..40.00%

OTHER INGREDIENTS:……60.00%

TOTAL: **100.00%**

Contains 3.6 lbs. buprofezin per U.S. gallon

EPA Reg. No.: 71711-20

EPA Est. No.:

[Alternate Brand Names: Buprofezin 40SC Insect Growth Regulator, Courier® 40SC Insect Growth Regulator, Courier® SC Insect Growth Regulator, Talus® 40SC Insect Growth Regulator, Centaur® SC Insect Growth Regulator]

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 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 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.
HOT LINE 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.	
NOTE TO PHYSICIAN: There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.	

In case of fire or spills, information may be obtained by calling 1-800-424-9300.

{Note to Reviewer: This language will be on the front of the booklet:} See inside booklet for Precautionary Statements and Directions for Use
{Note to Reviewer: This language will be on the label permanently affixed to the jug:} See attached booklet for Precautionary Statements and Directions for Use

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

ACCEPTED
09/13/2019
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 71711-20

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING - AVISO

Causes substantial but temporary eye injury. Avoid contact with skin or clothing. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of nitrile rubber ≥ 14 mils or butyl rubber ≥ 14 mils
- Protective eyewear (goggles, face shield or safety glasses)
- Shoes plus socks

STATEMENTS FOR CONTAMINATED PPE
Follow 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 [40 CFR 170.240 (d) (4–6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS
Users should: Wash 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
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. Do not contaminate water when disposing the equipment washwaters or rinsate.

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.

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), restricted-entry interval, and notification to workers.

Do not enter or allow worker entry into treated areas during 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 over long-sleeved shirt and long pants
- chemical-resistant gloves made of nitrile rubber ≥ 14 mils or butyl rubber ≥ 14 mils
- protective eyewear (goggles, face shield or safety glasses)
- shoes plus socks

PRODUCT INFORMATION

BUPROFEZIN 40SC is effective against the nymphal stages of whiteflies, scales, mealybugs, pear psylla, planthoppers, and leafhoppers by inhibiting chitin biosynthesis, suppressing oviposition of adults, and reducing viability of eggs. BUPROFEZIN 40SC is not an adulticide. Evidence of activity may be slower than typical contact insecticides as treated susceptible pests may remain alive on the plant for 3-7 days; however pests have stopped feeding and any feeding damage during this time is typically very low.

BUPROFEZIN 40SC is not disruptive to beneficial insects and mites.

BUPROFEZIN 40SC is a contact insecticide, so good spray coverage is necessary. Apply by ground or air in sufficient water volume. Orient nozzles to assure good coverage. Use of higher volume of water will assure better coverage, especially under adverse conditions such as hot, dry weather, and/or a dense canopy. The entire field should be treated. Apply when economic infestations occur based on local information.

BUPROFEZIN 40SC is Not for Sale, Sale into, Distribution, and or Use in Nassau and Suffolk Counties of New York State.

INSECTS CONTROLLED

Whiteflies: Ash whitefly, Bandedwinged whitefly, Greenhouse whitefly, Silverleaf whitefly, Sweetpotato whitefly

Mealybugs: Citrus mealybug, Comstock mealybug, Gill's mealybug, Grape mealybug, Longtailed mealybug, Mexican mealybug, Obscure mealybug, Striped mealybug, Vine mealybug

Leafhoppers and Planthoppers: Brown planthopper, Cherry leafhopper, Eastern grape leafhopper, Glassy-winged sharpshooter, Potato leafhopper, Variegated leafhopper, Western grape leafhopper, White apple leafhopper

Pear Psylla

Scales:

Soft Scales: Barnacle scale, Black scale, Brown soft scale, Citricola scale, False oleander scale, Hemispherical scale, Indian wax scale and other wax scales, Tessellated scale, White peach scale

Armored Scales: Boisduval scale, Cactus scale, California red scale, Coconut scale, Fern scale, Florida red scale, Oystershell scale, San Jose scale

Margarodid Scale: Cottony cushion scale

USE RESTRICTIONS

- With the exception of watercress, do not apply this product through any type of irrigation system.
- Do not apply this product in residential areas.
- Fogging applications are restricted to greenhouse use only.

ROTATIONAL CROPS RESTRICTIONS

CROPCROP GROUP	PLANTBACK TIMING
All crops registered for use with Buprofezin	0 days following application
Cereal grains	30 days following application
All other crops	60 days following application

RESISTANCE MANAGEMENT
For resistance management BUPROFEZIN 40SC contains a Group 16 insecticide. Any insecticide population may contain individuals naturally resistant to BUPROFEZIN 40SC and other Group 16 insecticides. The resistant individuals may dominate the insect population if this group of insecticides 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 BUPROFEZIN 40SC or other Group 16 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides 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.
- For further information or to report suspected resistance contact Nichino America representatives at 888-740-7700.

APPLICATION DIRECTIONS
Applications should be made immediately after the spray solution is prepared. Thorough spray coverage is essential for effective 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. 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 recommendations.

MIXING DIRECTIONS
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. Mix only as much spray solution as can be sprayed within four hours. Storage and use of the previous day's spray mix may result in reduced effectiveness of this product.

BUPROFEZIN 40SC ALONE: Fill spray tank with ¾ of the amount of water needed for the intended application and then turn on agitation. Pour recommended amount of

product on the surface of water in the spray tank. Add the balance of the water to the spray tank with agitation running.

BUPROFEZIN 40SC TANK MIXTURES: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
Begin with clean equipment. Fill spray tank with ¾ of the amount of water needed for the intended application and turn on agitation. If using a buffering agent, add after filling the tank with ¾ amount of water. Do not use oil as carrier or include other additives in the finished spray.

Add the recommended amount of tankmix products in the following order while maintaining agitation:

1) products in water-soluble packets
2) wettable powders
3) water-dispersible granulars and/or soluble powders
4) flowable liquids
5) emulsifiable concentrates
6) adjuvants and/or oils
7) remaining amount of water to achieve the desired level

Note: It is recommended that the compatibility of BUPROFEZIN 40SC in any tankmix combination be tested before use. To determine the physical compatibility with other products, use a jar test, as described below:

Using a quart (qt) jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then flowable liquids, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure to adding required ingredients to the spray tank.

SPRAY DRIFT REDUCTION MANAGEMENT
Do not apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Importance of Droplet Size
An important factor influencing drift is droplet size. Small droplets (<150 - 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Ground Applications
Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application. For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two (2) rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Aerial Applications
The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or 80% rotor diameter. Flight speed and nozzle orientation must be considered in determining droplet size. Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a

height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Wind Speed Restrictions
Drift potential increases at wind velocities of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Only apply this product if the wind direction favors on-target deposition. Do not apply when wind velocity exceeds 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions
Do not make ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by stable air and increasing temperatures 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 mist or ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally near the ground surface in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

Directions for Chemigation Application - Watercress only

Apply this product only through sprinkler irrigation systems. This method of application is restricted for use on watercress only. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should 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.

For applications made to watercress, production fields must be drained of water at least 24 hours prior to application and water must not be reapplied to the field for a minimum of 24 hours following the application.

BUPROFEZIN 40 SC may be applied through overhead sprinkler systems. In order to calibrate the irrigation system and injector to apply the mixture containing BUPROFEZIN 40 SC, determine the following:

1. Calculate the number of acres irrigated by the system.
2. Calculate the amount of product required and premix.
3. Determine the irrigation rate and determine the number of minutes for the system to cover the intended treatment area.
4. Calculate the total gallons of BUPROFEZIN 40 SC mixture needed to cover the desired acreage. Divide the total gallons of BUPROFEZIN 40 SC mixture needed by the number of minutes to cover the treatment area. This value equals the gallons per minute output that the injector or eductor must deliver. Convert the gallons per minute to milliliters or ounces

per minute if needed. Calibrate the injector system with the system in operation at the desired irrigation rate. It is suggested that the injection pump/system be calibrated before operation, and the system should be monitored during operation. Gallons per minute in a determined area = Total gallons of BUPROFEZIN 40 SC mixture / Minutes of injection.

5. Add the required amount of BUPROFEZIN 40SC to the solution tank with sufficient water to meet the injection time requirements.
6. Make certain the system is fully charged with water before starting injection of the BUPROFEZIN 40SC solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
7. Maintain constant solution tank agitation during the entire injection period.
8. Stop injection equipment after treatment is completed. Continue to operate the system until the BUPROFEZIN 40SC solution has cleared the last sprinkler head. (Also see instructions below for Sprinkler Chemigation and Chemigation Systems Connected to Public Water Systems).

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 back flow.

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 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 regular 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 form 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.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

APPLICATION RATE CHART FOR BUPROFEZIN 40SC

BEAN, SUCCULENT

Succulent forms of the following beans: *Cicer arietinum* (chickpea, garbanzo bean); *Lupinus* spp. (including sweet lupine, white sweet lupine, white lupine, and grain lupine). *Phaseolus* spp. (including kidney bean, lima bean, mung bean, navy bean, pinto bean, snap bean, and waxbean; *Vicia faba* (broad bean, fava bean); *Vigna* spp. (including asparagus bean, blackeyed pea and cowpea)

Pest	Rate/Acre	Use Directions
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Allow at least 14 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Do not make more than 2 applications per crop cycle. • Pre-Harvest Interval (PHI): 14 days **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

COTTONSEED SUBGROUP 20C
Cottonseed; cultivars, varieties, and/or hybrids of these

Pest	Rate/Acre	Use Directions
Whiteflies	9.0 to 12.5 fl oz/acre (0.25 to 0.35 lb ai/acre)	• For ground application, use 10 to 50 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 28 days between applications. • Do not apply more than 24.9 fl oz (0.70 lb ai) per acre per crop cycle. • Pre-Harvest Interval (PHI): 14 days **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

CUCURBIT VEGETABLES (CROP GROUP 9)
Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

Pest	Rate/Acre	Use Directions
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 7 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Do not make more than 4 applications per year. • Pre-Harvest Interval (PHI): 1 day **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

VEGETABLE, BRASSICA, HEAD AND STEM GROUP (GROUP 5-16) AND KOHLRABI
Broccoli; Brussels sprouts; cabbage; cabbage, Chinese, napa; cauliflower; cultivars, varieties, and hybrids of these commodities

Pest	Rate/Acre	Use Directions
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 7 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb/ai) per acre per crop cycle. • Do not make more than 4 applications per year • Pre-Harvest Interval (PHI): 1 day **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

LEAFY GREENS (SUBGROUP 4-16A).
Amaranth, Chinese; amaranth, leafy; aster, Indian; blackjack; cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; corn salad; cosmos; dandelion, leaves; dang-gwi, leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; huauzontle; jute, leaves; lettuce, bitter; lettuce, head; lettuce, leaf; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio; spinach; spinach, Malabar; spinach, New Zealand; spinach, tanier; Swiss chard; violet, Chinese, leaves; cultivars, varieties, and hybrids of these commodities

Pest	Rate/Acre	Use Directions
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 7 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Do not make more than 4 applications per year. • Pre-Harvest Interval (PHI): 7 days. **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

BRASSICA LEAFY GREENS (SUBGROUP 4-16B) Arugula; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale; collards; cress, garden; cress, upland; hanover salad; kale; maca, leaves; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress cultivars, varieties, and hybrids of these commodities		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 7 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Do not make more than 4 applications per year. • Pre-Harvest Interval (PHI): 1 day. • **Watercress (Not for Use in California):** Water inflow and outflow must be turned off 24 hours before an application and must remain off until 24 hours after an application. **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

LOW-GROWING BERRY (CROP SUBGROUP 13-07G) Bearberry, Bilberry, Blueberry (lowbush), Cloudberry, Cranberry, Lingonberry, Muntries, Partridgeberry, Strawberry ; cultivars, varieties, and/or hybrids of these		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 80 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Allow at least 10 days between applications. • Pre-Harvest Interval (PHI): 3 days **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

FIGS		
Pest	**Rate/Acre**	**Use Directions**
Scales	72 fl oz/acre (2.0 lb ai/acre)	• For ground application, use a minimum of 15 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 14 days between applications. • Do not apply more than 154 fl oz (4 lb ai) per acre per crop cycle. • Do not make more than 2 applications per year. • Pre-Harvest Interval (PHI): 14 days • Do not apply this product using a mechanically -pressurized handgun **RECOMMENDATIONS** • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

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**
Mealybugs	13.6 fl oz/acre (0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 5 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Pre-Harvest Interval (PHI): 1 day **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	

LEAF PETIOLE VEGETABLE (SUBGROUP 22B) CELTUCE AND FLORENCE FENNEL Cardoon; celery; celery, Chinese; fuki; rhubarb; udo; zuiki; cultivars, varieties, and hybrids of these commodities		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 7 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Do not make more than 4 applications per year. • Pre-Harvest Interval (PHI): 7 days. **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

PEARS AND ASIAN PEARS - (Not For Use In California)		
Pest	**Rate/Acre**	**Use Directions**
Mealybugs Pear psylla Scales	53.7 to 71.6 fl oz/acre (1.5 to 2.0 lb ai/acre)	• Apply by ground application using a minimum of 100 gallons of water per acre. **USE RESTRICTIONS** • **NOT FOR USE IN CALIFORNIA** • Do not make more than 2 applications per growing season. • Allow at least 7 days between applications. • Do not apply more than 107.4 fl oz (3.0 lbs ai) per acre per growing season. • Pre-Harvest Interval (PHI): 14 days **RECOMMENDATIONS** • **Pear psylla**: For best results of controlling 1st and 2nd instars, apply pre-bloom or at petal fall. In-season, apply early when smaller pear psylla nymphs are present. For best results, tankmix with an adulticide. • **Mealybugs or San Jose scale**: Apply pre-bloom or at first crawler emergence. • **Other scales**: Apply at first crawler emergence. • Good spray coverage is essential. • Phytotoxicity may occur in Asian pear varieties, normally limited to applications made prior to petal fall.

POME FRUITS (CROP GROUP 11-10) – EXCEPT PEARS and ASIAN PEARS (see Application Rate Chart for PEARS AND ASIAN PEARS) - (Not For Use In California)

Apple, Azarole, Crabapple, Loquat, Mayhaw, Medlar, Quince, Quince (Chinese), Quince (Japanese), Tejocote, Cultivars, varieties and/or hybrids of these.

Pest	Rate/Acre	Use Directions
Leafhoppers	14.2 to 18.8 fl oz/acre (0.40 to 0.53 lb ai/acre)	• Apply by ground application using a minimum of 80 gallons of water per acre. • For low-volume sprayers, use a minimum of 20 gallons of water per acre. **USE RESTRICTIONS** • **NOT FOR USE IN CALIFORNIA** • Do not make more than 1 application per growing season. • Do not apply more than 53.7 fl oz (1.5 lbs ai) per acre per growing season. • Pre-Harvest Interval (PHI): 14 days **RECOMMENDATIONS** • **San Jose scale**: Application can be made at dormant, delayed dormant, pre-bloom or in-season at early crawler emergence. • **Other scales**: Apply at early crawler emergence. • **Mealybugs**: Application should be made from dormant, delayed dormant to petal fall when nymphs are present. Apply in-season at early crawler emergence. • Good spray coverage is essential.
Mealybugs Scales	53.7 fl oz/A (1.5 lbs ai/acre)	

STONE FRUIT (CROP GROUP 12-12) - (Not For Use In California)

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
Mealybugs Scales	53.7 fl oz/acre (1.5 lb ai/acre)	**USE RESTRICTIONS** • **NOT FOR USE IN CALIFORNIA** • Apply by ground application using a minimum of 50 gallons of water per acre. • Do not make more than 2 applications per growing season. • Allow at least 14 days between applications. • Do not apply more than 107.4 fl oz (3.0 lbs ai) per acre per growing season. • Pre-Harvest Interval (PHI): 14 days **RECOMMENDATIONS** • **Mealybugs:** Application should be made when early crawler emergence occurs • **San Jose scale:** Application can be made at dormant, delayed dormant or pre-bloom when scale is in the black cap stage, or in-season at early crawler emergence. • **Other scales**: Apply at early crawler emergence. • Good spray coverage is essential

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container, unopened, in a cool, dry place.

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: Nonrefillable container. DO NOT reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or other methods allowed by state and local authorities.

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.

082019

{Sub-label B: Greenhouse Food-Use and Ornamental Plants}

BUPROFEZIN 40SC

ACTIVE INGREDIENT:

Buprofezin: [2-tert-butylimino-3-isopropyl-5-phenyl-1,3,5-thiadiazinan-4-one]…..……40.00%

OTHER INGREDIENTS:……60.00%

TOTAL: **100.00%**

Contains 3.6 lbs. buprofezin per U.S. gallon

EPA Reg. No.: 71711-20
EPA Est. No.:

[Alternate Brand Names: Buprofezin 40SC Insect Growth Regulator, Courier® 40SC Insect Growth Regulator, Courier® SC Insect Growth Regulator, Talus® 40SC Insect Growth Regulator, Centaur® SC Insect Growth Regulator]

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 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 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.
HOT LINE 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 .	
NOTE TO PHYSICIAN: There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.	

In case of fire or spills, information may be obtained by calling 1-800-424-9300.

{Note to Reviewer: This language will be on the front of the booklet:} See inside booklet for Precautionary Statements and Directions for Use
{Note to Reviewer: This language will be on the label permanently affixed to the jug:} See attached booklet for Precautionary Statements and Directions for Use

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

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING - AVISO

Causes substantial but temporary eye injury. Avoid contact with skin or clothing. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of nitrile rubber ≥ 14 mils or butyl rubber ≥ 14 mils
- Protective eyewear (goggles, face shield or safety glasses)
- Shoes plus socks
- **Applicators applying this product with fogging equipment must also wear**: a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N*, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with and N*, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

STATEMENTS FOR CONTAMINATED PPE
Follow 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 [40 CFR 170.240 (d) (4–6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS
Users should: Wash 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
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. Do not contaminate water when disposing the equipment washwaters or rinsate.

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.

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), restricted-entry interval, and notification to workers.

Do not enter or allow worker entry into treated areas during 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 over long-sleeved shirt and long pants
- chemical-resistant gloves made of nitrile rubber ≥ 14 mils or butyl rubber ≥ 14 mils
- protective eyewear (goggles, face shield or safety glasses)
- shoes plus socks

PRODUCT INFORMATION

BUPROFEZIN 40SC is effective against the nymphal stages of whiteflies, scales, mealybugs, pear psylla, planthoppers, and leafhoppers by inhibiting chitin biosynthesis, suppressing oviposition of adults, and reducing viability of eggs. BUPROFEZIN 40SC is not an adulticide. Evidence of activity may be slower than typical contact insecticides as treated susceptible pests may remain alive on the plant for 3-7 days; however pests have stopped feeding and any feeding damage during this time is typically very low.

BUPROFEZIN 40SC is not disruptive to beneficial insects and mites.

BUPROFEZIN 40SC is a contact insecticide, so good spray coverage is necessary. Apply by ground or air in sufficient water volume. Orient nozzles to assure good coverage. Use of higher volume of water will assure better coverage, especially under adverse conditions such as hot, dry weather, and/or a dense canopy. The entire field should be treated. Apply when economic infestations occur based on local information.

BUPROFEZIN 40SC is Not for Sale, Sale into, Distribution, and or Use in Nassau and Suffolk Counties of New York State.

INSECTS CONTROLLED

Whiteflies: Ash whitefly, Bandedwinged whitefly, Greenhouse whitefly, Silverleaf whitefly, Sweetpotato whitefly

Mealybugs: Citrus mealybug, Comstock mealybug, Gill's mealybug, Grape mealybug, Longtailed mealybug, Mexican mealybug, Obscure mealybug, Striped mealybug, Vine mealybug

Leafhoppers and Planthoppers: Brown planthopper, Cherry leafhopper, Eastern grape leafhopper, Glassy-winged sharpshooter, Potato leafhopper, Variegated leafhopper, Western grape leafhopper, White apple leafhopper

Pear Psylla

Scales:

Soft Scales: Barnacle scale, Black scale, Brown soft scale, Citricola scale, False oleander scale, Hemispherical scale, Indian wax scale and other wax scales, Tessellated scale, White peach scale

Armored Scales: Boisduval scale, Cactus scale, California red scale, Coconut scale, Fern scale, Florida red scale, Oystershell scale, San Jose scale

Margarodid Scale: Cottony cushion scale

USE RESTRICTIONS

- Do not apply this product through any type of irrigation system.
- Do not apply this product in residential areas.
- Fogging applications are restricted to greenhouse use only.

ROTATIONAL CROPS RESTRICTIONS

CROPCROP GROUP	PLANTBACK TIMING
All crops registered for use with Buprofezin	0 days following application
Cereal grains	30 days following application
All other crops	60 days following application

RESISTANCE MANAGEMENT

For resistance management BUPROFEZIN 40SC contains a Group 16 insecticide. Any insecticide population may contain individuals naturally resistant to BUPROFEZIN 40SC and other Group 16 insecticides. The resistant individuals may dominate the insect population if this group of insecticides 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 BUPROFEZIN 40SC or other Group 16 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides 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.

- For further information or to report suspected resistance contact Nichino America representatives at 888-740-7700.

APPLICATION DIRECTIONS
Applications should be made immediately after the spray solution is prepared. Thorough spray coverage is essential for effective 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. 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 recommendations.

MIXING DIRECTIONS
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. Mix only as much spray solution as can be sprayed within four hours. Storage and use of the previous day's spray mix may result in reduced effectiveness of this product.

BUPROFEZIN 40SC ALONE: Fill spray tank with ¾ of the amount of water needed for the intended application and then turn on agitation. Pour recommended amount of product on the surface of water in the spray tank. Add the balance of the water to the spray tank with agitation running.

BUPROFEZIN 40SC TANK MIXTURES: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Begin with clean equipment. Fill spray tank with ¾ of the amount of water needed for the intended application and turn on agitation. If using a buffering agent, add after filling the tank with ¾ amount of water. Do not use oil as carrier or include other additives in the finished spray.

Add the recommended amount of tankmix products in the following order while maintaining agitation:

1) products in water-soluble packets
2) wettable powders
3) water-dispersible granulars and/or soluble powders
4) flowable liquids
5) emulsifiable concentrates
6) adjuvants and/or oils
7) remaining amount of water to achieve the desired level

Note: It is recommended that the compatibility of BUPROFEZIN 40SC in any tankmix combination be tested before use. To determine the physical compatibility with other products, use a jar test, as described below:

Using a quart (qt) jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then flowable liquids, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure to adding required ingredients to the spray tank.

SPRAY DRIFT REDUCTION MANAGEMENT
Do not apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Importance of Droplet Size
An important factor influencing drift is droplet size. Small droplets (<150 - 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Ground Applications
Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application. For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two (2) rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Wind Speed Restrictions
Drift potential increases at wind velocities of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Only apply this product if the wind direction favors on-target deposition. Do not apply when wind velocity exceeds 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions
Do not make ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by stable air and increasing temperatures 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 mist or ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally near the ground surface in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

APPLICATION RATE CHART FOR BUPROFEZIN 40SC

Greenhouse Tomatoes and Peppers		
Pests	**Dilution Rate (fl oz/100 gallons)**	**Use Directions**
Mealybugs	13.6 fl oz/100 gal (0.38 lb ai/100 gal)	**USE RESTRICTIONS** • Do not make more than 2 applications per crop cycle. • Allow at least 5 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Pre-Harvest Interval (PHI): 1 day • Apply by ground on 2 acre minimum with 100 gallons of water per acre. • Applicators applying this product with fogging equipment must also wear: a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N*, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with and N*, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters. **RECOMMENDATIONS** • 100 gallons of finished spray solution will typically cover 1 acre. • Treatment should be applied when nymphal population level reaches economic threshold. • apply in sufficient water to obtain complete coverage of all plant parts. • Applications may be made with high volume, low volume or ultra low volume (thermal and non-thermal foggers, misters, etc.) 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.
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/100 gal (0.25 to 0.38 lb ai/100 gal)	

{Sub-label B: Greenhouse Food-Use and Ornamental Plants}

<table>
<tr><td colspan="3">ORNAMENTAL PLANTS in greenhouses; lath and shadehouses; nurseries; landscape ornamentals; ground covers; field- and container-grown ornamentals; non-bearing fruit and nut trees in nurseries; Christmas trees</td></tr>
<tr><th>Pest</th><th>Dilution Rate
fl oz/100 gallons</th><th>Use Directions</th></tr>
<tr><td>Leafhoppers
Mealybugs
Planthoppers</td><td>18.0 fl oz/100 gal

(0.51 lb ai/100 gal)</td><td rowspan="3">USE RESTRICTIONS
• Do not make more than 2 applications per year.
• Do not apply more than 43.0 fl oz (1.20 lb ai) per acre per year.
• Do not apply this product in residential areas.
• Applicators applying this product with fogging equipment must also wear: a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N*, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with and N*, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

RECOMMENDATIONS

• 100 gallons of finished spray solution will typically cover 1 acre.
• Apply the specified dosage as a foliar spray in sufficient water for complete, uniform coverage, including stems and underside of leaves. Spray to the point of runoff.
• Leafhoppers, Planthoppers, Whiteflies: Make first application as soon as adult insects begin to appear.
• Mealybugs: Make first application as soon as insect activity is observed.
• Scales: Make first application when crawlers are emerging.
• If additional insecticide applications are required for control, use another class of chemistry or a different Insect Growth Regulator (IGR) with a different mode of action before making a second application of BUPROFEZIN 40SC.
• Consult local or state agricultural authorities for details concerning economic thresholds for each target pest.</td></tr>
<tr><td>Scales</td><td>21.5 fl oz/100 gal

(0.60 lb ai/100 gal)</td></tr>
<tr><td>Whiteflies</td><td>9.0 fl oz/100 gal

(0.25 lb ai/100 gal)</td></tr>
</table>

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container, unopened, in a cool, dry place.

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: Nonrefillable container. DO NOT reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or other methods allowed by state and local authorities.

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.

082019

SUPPLEMENTAL LABELING

BUPROFEZIN	GROUP	16	INSECTICIDE

Buprofezin 40SC

EPA Reg. No. 71711-20

For Use on Watercress

ACCEPTED
09/13/2019
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 71711-20

This supplemental label expires 03/18/2021 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 BUPROFEZIN 40SC before applying. Use of BUPROFEZIN 40SC according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for BUPROFEZIN 40SC.

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

APPLICATION RATE CHART

Watercress		
Pest	**Rate/Acre**	**Use Directions**
Leafhoppers Planthoppers Whiteflies	9.0 to 13.6 fl oz/acre (0.25 to 0.38 lb ai/acre)	• For ground application, use a minimum of 20 gallons of water per acre. • For aerial application, use a minimum of 5 gallons of water per acre. **USE RESTRICTIONS** • **NOT FOR USE IN CALIFORNIA** • For chemigation application (Watercress only), see instruction provided below. • Water inflow and outflow must be turned off 24 hours before an application and must remain off until 24 hours after an application. • Do not make more than 2 applications per crop cycle. • Allow at least 7 days between applications. • Do not apply more than 27.2 fl oz (0.76 lb ai) per acre per crop cycle. • Do not make more than 4 applications per year. • Pre-Harvest Interval (PHI): 1 day. **RECOMMENDATIONS** • Treatment should be applied when nymphal population level reaches economic threshold. • Good coverage is essential. Use of a higher volume of water will assure better coverage, especially under adverse conditions, such as hot, dry weather and/or a dense canopy. Use the higher application rate and spray volume when treating a rapidly increasing insect population.

Directions for Chemigation Application - Watercress only

Apply this product only through sprinkler irrigation systems. This method of application is restricted for use on watercress only. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should 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.

For applications made to watercress, production fields must be drained of water at least 24 hours prior to application and water must not be reapplied to the field for a minimum of 24 hours following the application.

BUPROFEZIN 40 SC may be applied through overhead sprinkler systems. In order to calibrate the irrigation system and injector to apply the mixture containing BUPROFEZIN 40 SC, determine the following:

1. Calculate the number of acres irrigated by the system.
2. Calculate the amount of product required and premix.
3. Determine the irrigation rate and determine the number of minutes for the system to cover the intended treatment area.
4. Calculate the total gallons of BUPROFEZIN 40 SC mixture needed to cover the desired acreage. Divide the total gallons of BUPROFEZIN 40 SC mixture needed by the number of minutes to cover the treatment area. This value equals the gallons per minute output that the injector or eductor must deliver. Convert the gallons per minute to milliliters or ounces per minute if needed. Calibrate the injector system with the system in operation at the desired irrigation rate. It is suggested that the injection pump/system be calibrated before operation, and the system should be monitored during operation. Gallons per minute in a determined area = Total gallons of BUPROFEZIN 40 SC mixture / Minutes of injection.
5. Add the required amount of BUPROFEZIN 40SC to the solution tank with sufficient water to meet the injection time requirements.
6. Make certain the system is fully charged with water before starting injection of the BUPROFEZIN 40SC solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
7. Maintain constant solution tank agitation during the entire injection period.
8. Stop injection equipment after treatment is completed. Continue to operate the system until the BUPROFEZIN 40SC solution has cleared the last sprinkler head. (Also see instructions below for Sprinkler Chemigation and Chemigation Systems Connected to Public Water Systems).

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 back flow.

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 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 regular 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 form 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.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

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