

71711-29



06-17-2009

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1/15

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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Marie A Maks
Nichino America
4550 New Linden Hill Road - Suite 501
Wilmington, DE 19808

JUN 17 2009

Dear Ms. Maks:

Subject: Revised Labeling
NNH-950-4 Herbicide
EPA File Symbol 71711-29
Your Notification submitted on May 14, 2009

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

If you have any questions concerning this letter, please contact me at 703-305-6224.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505P)

Enclosure

NICHINO AMERICA, INC.

**ACCEPTED
with COMMENTS
In EPA Letter Dated:**

NNH-950-4
051409Page 1 of 14

2/15

**NNH-950-4
Herbicide**

(Not for homeowner use)

JUN 17 2009
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

71711-29

Active Ingredient:

Pyraflufen ethyl (ethyl 2-chloro-5-(4-chloro-5-difluoromethoxy-1-methyl-1 <i>H</i> -pyrazol-3-yl)-4-fluorophenoxyacetate	0.16%
Glyphosate (N-(phosphonomethyl)glycine, in the form of its isopropylamine salt).....	30.00%
Other Ingredients:	69.84%

Total: 100.00%

Contains 0.015 lb pyraflufen ethyl and 2.8 lbs glyphosate acid equivalent per U.S. gallon

**EPA Reg. No. 71711- 29
EPA Est. No. 37429-GA-1**

Alternate Brand: Thunderbolt Herbicide

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID	
If on skin or clothing	<ul style="list-style-type: none"> • 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.
If swallowed	<ul style="list-style-type: none"> • 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.
HOTLINE 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.	

Net Contents: 2.5 gal (9.46 L)

Active Ingredients Made in Japan and China; Formulated and Packaged in U.S.A. for
Nichino America, Inc.
4550 New Linden Hill Road, Suite 501
Wilmington, DE 19808

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

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

Personal Protective Equipment (PPE)

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant (such as nitrile or butyl) gloves
- Shoes plus socks
- Protective eyewear
- For overhead exposure, wear chemical resistant headgear

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.

User Safety Recommendations

Users should: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

ENGINEERING CONTROLS STATEMENTS

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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. This product may contaminate water through drift of spray in wind or via runoff events. Use care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from treated areas.

SPRAY DRIFT

Avoid spray drift to all other crops and nontarget areas. Do not apply when weather conditions may cause drift. Do not allow this product to drift onto nontarget areas. Drift may result in illegal residues or injury to adjacent crops and vegetation, in the form of leaf yellowing and defoliation. To avoid spray drift, DO NOT apply aerially when wind speed is greater than 10 mph or during periods of temperature inversions. Use of larger droplet size will also reduce spray drift.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Droplet size, boom height, and wind speed are the primary factors determining drift. The specific application conditions required for the use of this product are described below.

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

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. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

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.

Maintenance of Nozzles – Periodic inspection and subsequent replacement of nozzles to ensure proper chemical application is recommended.

Boom Length

For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

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 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
- Chemical resistant (such as nitrile or butyl) gloves
- Shoes plus socks
- Protective eyewear

NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or greenhouses. For other uses, including interiorscapes and other nonagricultural uses, do not enter treated areas without protective clothing until sprays have dried.

GENERAL INFORMATION

NNH-950-4 is designed for nonselective grass and broadleaf weed control. This product contains two active ingredients; one of which provides systemic grass and broadleaf control and one which provides contact activity against broadleaf weeds.

Only certified applicators are permitted to apply **NNH-950-4** for turf and ornamental sites. This product is nonselective and should not be applied to sensitive crops or foliage, including turfgrass.

USE RESTRICTIONS

- Do not apply more than 32 fl oz/acre for preplant burndown use prior to seeding crops listed on this label (corn, wheat, soybean, cotton, root and tuber vegetables, leafy vegetables, cole crops, legumes, fruiting vegetables, cucurbits, and small grains).
- Do not apply more than 76 fl oz/acre for preplant fallow and crop stubble.
- Do not apply more than 76 fl oz/acre for nonbearing and bearing deciduous fruit and nut trees and vines.
- Do not apply more than 76 fl oz/acre for noncrop land and uncultivated agricultural areas per year.
- Do not apply more than 96 fl oz/acre per growing season for noncrop weeds per year.
- Do not apply this product through any type of irrigation system.

WEEDS CONTROLLED

The following broadleaf and grass weed species can be controlled up to 4 inches in height or less, or rosettes of 3 inches in diameter or less, by applications of NNH-950-4 at rates of 24-38 fl oz per acre. Tankmixes of NNH-950-4 with other herbicides may be needed for control of these weed species if larger than 4 inches tall or rosettes of greater than 3 inches in diameter.

Barley	Crabgrass	London rocket
Bedstraw	Dwarf dandelion	Mustard, blue
Beggartick, hairy	Fall panicum	Mustard, tansy
Bindweed, field (suppression)	Field pennycress	Mustard, tumble
Bittercress	Fleabane, annual	Mustard, wild
Bluegreass, annual	Fleabane, rough	Sandbur, field
Bluegrass, bulbous	Foxtail, giant	Shepherd's-purse
Brome, downy	Foxtail, green	Sprangletop
Brome, Japanese	Foxtail, yellow	Sunflower, common
Browntop panicum	Goatgrass, jointed	Texas panicum
Cheatgrass	Grain sorghum	Wild oats
Cocklebur	Johnsongrass, seedling	
Corn speedwell	Little barley	

8
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The following broadleaf and grass weed species can be controlled up to 4 inches in height or less, or rosettes of 3 inches in diameter or less, by applications of NNH-950-4 at rates of 32-38 fl oz per acre. Tankmixes of NNH-950-4 with other herbicides may be needed for control of these weed species if larger than 4 inches tall or rosettes of greater than 3 inches in diameter.

Anoda, spurred	Goosegrass	Prickly sida
Barnyardgrass	Groundcherry	Ragweed, common
Beggarweed, Florida	Groundsel, common	Ragweed, giant
Buckwheat, wild	Hemp sesbania	Sicklepod
Bur cucumber	Henbit	Signalgrass, broadleaf
Canola	Marestail (Horseweed)	Smellmelon
Carolina geranium	Jimsonweed	Smartweed (ladysthumb)
Carpetweed	Knotweed	Smartweed, Pennsylvania
Celery, wild	Kochia	Sowthistle, annual
Chickweed	Lambsquarters	Spurge, leafy (suppression)
Copperleaf, hornbeam	Mallow, common	Spurge, prostrate
Copperleaf, Virginia	Mayweed	Spurge, spotted
Cutleaf eveningprimrose	Morningglory	Swinecress
Dandelion	Nightshade, black	Thistle, Russian
Dock, curly	Nightshade, hairy	Toadflax, dalmation
Eclipta	Nettle, stinging	Velvetleaf
False dandelion	Pigweeds	Virginia pepperweed
Fiddleneck	Poinsettia, wild	Waterhemp, tall
Filaree	Poison-ivy	Wild proso millet
Fleabane, hairy	Prickly lettuce	Woolly cupgrass
Florida pusley	Purslane	Yellow rocket

MIXING DIRECTIONS

Add 1/2 to 3/4 of the required amount of water to the spray tank. Start agitation. Add the required amount of NNH-950-4 and the remaining amount of water. 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 activity.

Use an approved agricultural buffering agent buffering to pH 7.0 or less if using NNH-950-4 in a water source of greater than pH 7.0.

TANK MIXTURES

NNH-950-4 may be applied as a tankmix or in sequential application with other herbicide products. Weather, crop conditions, or the presence of certain weeds, crop damaging insects, or diseases will indicate the inclusion of other pesticides in the defoliation or desiccation application.

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

12
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APPLICATION AND DOSAGE

PREPLANT BURNDOWN

NNH-950-4 may be used for weed control preplant to the following crops:

Field Corn, Wheat, Soybeans, Cotton, Root and Tuber Vegetables, Leafy Vegetables, Cole Crops, Legumes, Fruiting Vegetables, Cucurbits, and Small Grains (Limited to Preplant Burndown)

For best results, use NNH-950-4 herbicide for control of annual or perennial herbaceous broadleaf or grass weeds less than 4" in height, or rosettes less than 3" in diameter. Thorough, uniform spray coverage is essential for good control. NNH-950-4 herbicide may be applied preplant burndown to control weeds or in tank mixtures with other labeled herbicides.

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

Crop	Pest	Rate/Acre	Use Restrictions and Comments
Field Corn Cotton Soybeans Wheat	Annual grass and/or broadleaf weeds	24-32 fl oz/A in a minimum of 5 gallons water per acre by air or 10 gallons water per acre by ground*.	<ul style="list-style-type: none"> ▪ Use the higher rate and spray volumes for control of larger weeds (4" tall). Control may be reduced with weeds larger than 4 inches tall. ▪ Allow a minimum of 30 days between applications. ▪ Treated areas may be replanted immediately with any crop listed in this section. ▪ Do not plant any other rotational food crops for 30 days after the last application. ▪ Do not apply more than 32 fl oz/A for this use.
Root and Tuber Vegetables, Leafy Vegetables, Cole Crops, Legumes, Fruiting Vegetables, Cucurbits, Small Grains			<ul style="list-style-type: none"> ▪ Use the higher rate and spray volumes for control of larger weeds (4" tall). Control may be reduced with weeds larger than 4 inches tall. ▪ Allow a minimum of 30 days between applications. ▪ Do not apply within 2 days of planting for crops listed in this section. ▪ Do not plant any other rotational food crops for 30 days after the last application. ▪ Do not apply more than 32 fl oz/A for this use.
*Refer to Weeds Controlled section for specific rate recommendations. NNH-950-4 may be tank mixed with other labeled herbicides, including residual products for expanded weed control.			

11
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PREPLANT FALLOW BEDS AND CROP STUBBLE

This product may be applied preplant to fallowland in preparation for planting or postharvest to crop stubble. Preplant applications may be made prior to planting during the fallow period for any crop listed on this label. For crops not listed on this label, applications must be made at least 30 days prior to planting.

For best results, use NNH-950-4 herbicide for control of annual or perennial broadleaf and grass weeds less than 4" in height, or rosettes less than 3" in diameter. Thorough, uniform spray coverage is essential for good control. NNH-950-4 herbicide may be applied after the harvest of any crop to control late emerging broadleaf weeds or in tank mixtures with other labeled herbicides for broad spectrum weed control.

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

Crop	Pest	Rate/Acre	Use Restrictions and Comments
Preplant Fallowbeds and Crop Stubble	Annual grass and/or broadleaf weeds	24-32 fl oz/A in a minimum of 10 gallons water per acre by ground; 5 gallons water per acre by air*	<ul style="list-style-type: none">• Use the higher rate and spray volumes for control of larger weeds (4" tall). Control may be reduced with weeds larger than 4 inches tall.• Allow a minimum of 30 days between applications.• For crops not listed on this label, applications must be made at least 30 days prior to planting.

*Refer to Weeds Controlled section above for specific rate recommendations.

12
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**NONCROP LAND AND UNCULTIVATED AGRICULTURAL AREAS
(nonfood producing)**

NNH-950-4 herbicide may be used for broad spectrum weed control in noncrop situations. For best results, use NNH-950-4 herbicide for control of annual or perennial broadleaf and grass weeds less than 4" in height, or rosettes less than 3" in diameter. Thorough, uniform spray coverage is essential for good control.

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

Crop	Pest	Rate/Acre	Use Restrictions and Comments
Noncrop Land and Uncultivated Agricultural Areas	Annual grass and/or broadleaf weeds	24-32 fl oz/A plus other labeled herbicides in a minimum of 5 gallons water per acre by air or 10 gallons water per acre by ground	<ul style="list-style-type: none"> ▪ Use the higher rates and spray volumes for control of larger weeds (4" tall). Control may be reduced with weeds larger than 4 inches tall. ▪ Allow a minimum of 30 days between applications.

NONCROP WEED CONTROL (Not for homeowner use)

For use in noncrop areas where control of weeds is desired, such as airports; commercial plants; storage and lumber yards; barrier strips and firebreaks; equipment areas; nurseries and ornamental plantings; sodfarms; Christmas trees; established ornamental turf; railroad, roadside and utility rights-of-way; fuel tank farms and pumping stations; other similar industrial noncrop areas.

For applications to ornamental turf and plantings, do not allow people (other than the applicator) or pets on treatment area during application and until sprays have dried (refer to Nonagricultural Use Requirements box). Apply NNH-950-4 at rates specified in the dosage table below for control of broadleaf and grass weeds. **Avoid contact with desirable vegetation.**

Addition of a nonionic surfactant or crop oil concentrate (COC) is recommended for optimum control. Follow manufacturer's use rates.

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

13
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Use	Rate/Acre	Use Restrictions and Comments
(See directions for use above for explanation of appropriate use sites)	24-38 fl oz/A in 20 to 40 gpa using ground or backpack or similar spray equipment or 5 gpa by air	<ul style="list-style-type: none"> ▪ Do not make more than 3 applications. ▪ Allow a minimum of 30 days between applications.

NONBEARING DECIDUOUS FRUIT AND NUT TREES AND VINES (EXCLUDING CITRUS)

For best results, apply NNH-950-4 Herbicide for control of annual or perennial broadleaf and grass weeds less than 4" in height or rosettes less than 3" in diameter. Thorough, uniform spray coverage is essential for adequate control.

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

Crop	Pest	Rate/Acre	Comments and Restrictions
Nonbearing Tree Fruit, Nut, and Vine Crops	Annual grasses and/or broadleaf weeds	24-32 fl oz/A in a minimum of 10 gallons of water per acre by ground	<ul style="list-style-type: none"> ▪ Use the higher rate and spray volumes for control of larger weeds (4" tall). Control may be reduced with weeds larger than 4 inches tall. ▪ Allow a minimum of 30 days between applications. ▪ Do not harvest edible crops for 12 months following application. ▪ Addition of labeled residual herbicides to extend weed control is permissible. ▪ Do not apply by air.

15/14

**DECIDUOUS FRUIT AND NUT TREES AND VINES (EXCLUDING CITRUS)
(Postharvest, Dormant and Prebloom applications)**

[dates, feijoa, figs, grapes, kiwi fruit, mango, olives, persimmons, pome fruit, pomegranates, stone fruit, and tree nuts] (excluding citrus)

NNH-950-4 may be applied as a postharvest or preplant burndown treatment for control of emerged winter and summer annual broadleaf and grass weeds and burndown or suppression of certain perennial broadleaf and grass weeds during the dormant period prior to bloom. NNH-950-4 should be applied to emerged weeds less than 4" in height or rosettes less than 3" in diameter. Thorough coverage of target weeds is essential for optimum performance. Addition of a nonionic surfactant or crop oil concentrate (COC) is recommended for optimum control. Follow manufacturer's use rates. Read and follow all label directions for each tankmix product. Always use in accordance with the most restrictive of label precautions and limitations.

Crop	Pest	Rate/Acre	Use Restrictions and Comments
Dates, Feijoa, Figs, Grapes, Kiwi Fruit, Mango, Olives, Persimmons, Pome and Stone Fruit, Pomegranates, Tree Nuts	Annual grass and broadleaf weeds	24-32 fl oz/A in a minimum of 10 gallons water per acre in a broadcast or band directed application	<ul style="list-style-type: none"> ▪ Use the higher rate and spray volumes for control of larger weeds (4" tall). Control may be reduced with weeds larger than 4 inches tall. ▪ Allow a minimum of 30 days between applications. ▪ Do not allow spray to contact green bark of trunk area on young grape vines and fruit or nut trees. ▪ Do not apply by air.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage: Store in a cool place.

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

Container Disposal: DO NOT reuse empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

