228-167

8/14/2014

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

August 14, 2014

Matthew Granahan Nufarm Americas Inc. 4020 Aerial Center Parkway, Suite 101 Morrisville, NC 27560

Subject:

Label Notification per PRN 98-10 – (adding marketing claims) Product Name: Turf Weed and Brush Control EPA Registration Number: 228-167 Application Date: 4-8-14 Decision Number: 494292

Dear Mr. Granahan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, you may contact Erik Kraft at 703-308-9358 or via email at kraft.erik@epa.gov.

Sincerely,

Kathryn Montague, Product Manager 23 Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

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1. Company/Product Number 228-167	<u>.</u>		)	roduct Mena Montague	gər		r-	Proposed Classification
, Company/Product (Name) Furf Weed and Brush Control (AB	N: Patrol 170)		PM# 23					
5. Name and Address of Applicant & Nufarm Americas Inc. 11901 S. Austin Ave. Alsip, IL 60803		(e)	(b)(i), m to: EPA R	y product is eg. No	simi	lar or ident	ical in c	h FIFRA Section 3(c)(3 composition and labeling
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Amendment - Explain below. Resubmission in response to Notification - Explain below.		lated	[_]	Final printed Agency letter "Ma Too" Ap Other - Expla	r date oplica	d tion.	e to	
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EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete.

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NUFARM AMERICAS INC. 4020 Aerial Center Parkway, Suite 101 Morrisville, NC 27560 Phone: 708-377-1421 Fax: 919-467-5923

April 8, 2014

Via Overnight Courier

Kathryn Montague (PM-23) Document Processing Desk (NOTIF) Office of Pesticide Programs (7504P) U. S. Environmental Protection Agency Room S-4900, One Potomac Yard 2777 South Crystal Drive Arlington, VA 22202-4501

# Subject: Turf Weed and Brush Control (ABN: Patrol 170) EPA Reg. No. 228-167 Label Change Notification per PR-N 98-10

Dear Ms. Montague:

Nufarm Americas Inc. would like to make a minor label change per PRN 98-10 to Turf Weed and Brush Control (ABN: Patrol 170), EPA Reg. No. 228-167. On this submitted change we have added two optional marketing claims to the MASTER Label for this registration:

Grow a better tomorrow.

Nufarm believes this submission falls under PR Notice 98-10 as this label language is not thought to be false or misleading, and as such no PRIA payment has been rendered.

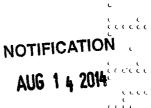
To process this request please find enclosed the following:

- EPA form 8570-1
- Label Certification form
- Label (Highlighted)
- Label (Clean)
- CD with a clean copy of the label

If you should have any questions regarding this matter, please contact me at (708) 377-1421 or via e-mail at matthew.granahan@us.nufarm.com.

Sincere

Matthew Granahan Regulatory Manager



NOTIFICATION

AUG 1 4 2014

# **TURF WEED AND BRUSH CONTROL**

# ABN: PATRON<sup>®</sup> 170

A WOODY PLANT HERBICIDE FOR CONTROLLING MIXED BRUSH ON UTILITY RIGHTS-OF-WAY, HIGHWAYS, FENCE ROWS, FIREBREAKS, FORESTS, AND INDUSTRIAL SITES. SOLID STANDS OF OAK OR ELM. CONTROLS NOXIOUS PERENNIAL WEEDS ON BOTH CROP AND NON-CROPLAND. ALSO CONTROLS NOXIOUS PERENNIAL WEEDS ON UNCROPPED LAND, LAWNS, GOLF COURSES, ATHLETIC FIELDS, PARKS AND OTHER ORNAMENTAL TURF GRASS AREAS, AND SOD FARMS.

# CONTAINS 2D + 2DP-p L.V. ESTER GET THE OPTICAL ADVANTAGE

#### **ACTIVE INGREDIENTS:**

2-Ethylhexyl Ester of 2,4-Dichlorophenoxyacetic Acid*	32.1%
2-Ethylhexyl Ester of (+)-R-2-(2,4-Dichlorophenoxy)propionic Acid**‡ 1	
OTHER INGREDIENTS:	
TOTAL:	· · · · · · · · · · · · · · · · · · ·

**Contains Petroleum Distillates** 

Isomer Specific Method, Equivalent to:	
*2,4-Dichlorophenoxyacetic Acid	. 21.3%, 1.71 lbs./gal.
**(+)-R-2-(2,4-Dichlorophenoxy)propionic Acid	
±CONTAINS THE SINGLE ISOMER FORM OF DICHLORPROP-0	

# KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300. For Medical Emergencies Only, Call (877) 325-1840

NOTE: Spanish language is optional

EPA REG. NO. 228-167 EPA EST. NO. Manufactured for: NUFARM AMERICAS INC. 11901 S. AUSTIN AVE. ALSIP, IL 60803



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NET CONTENTS [Designation as "NONREFILLABLE" or "REFILLABLE" for containers > 5 GAL]

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#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING - AVISO

Causes skin irritation. Harmful if swallowed. Causes moderate eye irritation. Do not get on skin or clothing. Avoid contact eyes.

#### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber, neoprene rubber, and viton. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart

#### All mixers, loaders, applicators, and other handlers must wear:

- · Coveralls over short-sleeved shirt and short pants,
- · Chemical-resistant footwear plus socks,
- · Chemical-resistant gloves,
- · Chemical-resistant apron when mixing or loading, cleaning up spills or equipment,
- Protective eyewear, and
- Chemical-resistant headgear for overhead exposure.

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them,

## **Engineering Controls Statement**

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

# USER SAFETY RECOMMENDATIONS

#### Users Should:

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

	FIRST AID	
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
IF SWALLOWED	Do not induce vomiting unless told to do so by the poison control center or doctor.	ιυίι ι ειι ι ε ι ι
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
	HOT LINE NUMBER	erec
	ontainer or label with you when calling a poison control center or doctor, or going for treatme ct 1-877-325-1840 for emergency medical treatment information.	ent. c
······································	NOTE TO PHYSICIAN	- (- -
Contains petroleum	distillate – vomiting may cause aspiration pneumonia.	ιιι

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#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates and may adversely affect non-target plants. Do not apply directly to water, to areas where surface water is present. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This product has properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

# **DIRECTIONS FOR USE**

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

READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.

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.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in <u>Washington Toxics Coalition, el al. v. EPA</u>, C01-0132C, (W.D. WA). For further information, please refer to http://www.epa.gov/espp/.

# 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 48 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 gloves made of any water-proof material, shoes plus socks, and protective eyewear.

#### NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

#### USE PRECAUTIONS

Aerial application of this product is prohibited.

Do not apply this product through any type of irrigation system. Do not contaminate irrigation ditches or water used for domestic purposes. Do not use this product on or near desirable plants, including within the dripline of roots of desirable trees and shrubs since injury may result. Use care to avoid spray contact or drift to 2,4-D or 2,4-DP susceptible plants such as okra, cotton, tomatoes, flowers, grapes, fruit trees, vegetables and ornamentals. Do not be visible, can cause severe injury during both growing and dormant periods. Read and follow all directions below for management of spray drift. Do not use the same spray equipment for applying other materials to 2,4-D susceptible crops as injury may result.

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#### SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, air blast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

# **Droplet Size**

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### Wind Speed

Do not apply at wind speeds greater than 10 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

#### Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### **Susceptible Plants**

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

#### Equipment

All ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional requirements for ground boom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

Additional requirements for liquid products applied as a spray and containing an ester form of 2,4-D (e.g. 2,4-D butoxyethyl ester, 2,4-D ethylhexyl ester, 2,4-D isopropyl ester):

2;4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures.

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#### NON-CROPLAND

#### (Fencerows, Hedgerows, Roadsides, Ditches, Rights-of-Way, Utility, Power Lines, Railroads, Airports, and Industrial Sites)

This product is specifically designed for utilities and other industrial users to control woody plants. This product also controls many noxious perennial weeds on uncropped land, such as along highways and fence rows. The following is a partial list of the weeds controlled:

Alder	Dewberry	Oak	Snowberry
Ash*	Dogwood	Osage orange	Spicebush
Aspen	Elderberry	Palmetto	Spruce
Birch	Elm	Persimmon*	Sumac
Blackberry	Fir	` Pine	Sweetgum
Black cherry	Gooseberry	Poison ivy	Sycamore
Blackjack oak	Greenbrier	Poison oak	Tulip poplar
Black locust	Gum	Poplar	Virginia creeper
Box elder	Hemlock	Raspberry	Wild cherry
Brambles	Honeysuckle	Red elder	Wild grape
Buckbrush	Kudzuvine	Salmonberry	Wild rose
Ceanothus	Locust	Sand sagebrush	Willow
Chamise	Manzanita	Sassafras	Winged elm
Coffeeberry	Maple*	Serviceberry	Yerba santa
Currant	Multifloral rose	Shinnery oak	and many other species

\*Best controlled by stump or basal treatment.

#### **RESTRICTIONS FOR NON-CROPLAND:**

- For broadcast treatments, do not apply more than 6.9 pints of product per acre. Do not make more than 2 applications per year with a minimum of 30 days between applications.
- For postemergence non-cropland woody plants, do not apply more than 6.9 pints of product per acre. Do not make more than 1 application per year.
- For spot treatments (for woody plants and brush management) do not apply more than 2.3 gallons of product per acre per application. Do not make more than 2 applications per year with a minimum of 30 days between applications. Broadcast application is prohibited at this rate. A spot treatment is defined as a treatment area not greater than 1,000 square feet per acre.

# LIMITATION FOR NON-CROPLAND:

- Avoid application when the bark is wet due to precipitation, poor control may result.
- Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

**TO PREPARE SPRAY:** Add one-half the required amount of oil (kerosene, diesel or fuel oil) or water to the spray tank, then add this product with agitation and finally the balance of the water or oil with continued agitation. This material forms an emulsion in water not a solution. This tends to separate on standing. Provide agitation to prevent such separation and ensure a uniform mixture. If this material is to be used in straight oil mixtures, do not let water get into it or the finished mixture.

FOLIAGE STEM TREATMENT: This is the standard method for high-volume sprays along fence rows, highways and rights-of-way. Use as a first spray on thick brush composed of mixed species. Apply to both stems and foliage from the time foliage is completely matured until the plants start to go dormant. All leaves, stems and suckers must be completely wet to the ground line for effective control. Some regrowth may be anticipated on the more resistant species, such as oak, maple, ash and persimmon. Add 1-1/5 to 3-2/5 pints of this product to 100 gallons of Water using 200 to 600 gallons of spray mixture per acre, depending upon the height and thickness of the brush. Mix thoroughly before spraying.

**SPOT TREATMENT:** For spot spraying with backpack sprayer, mix 1 cup (8 fluid ounces) of this product with 5 gallons of water. Wet brush, stems and foliage thoroughly.

BASAL BARK TREATMENT: Thoroughly wet the base and root collar of all stems until the spray accumulates around the root collar at the ground line. This spray may be applied during any season. Use this product for basal bark treatment on scattered brush or as a second spray application on species resistant to first foliage application. Mix 2.25 gallons of this product in 100 gallons of oil per acre. Apply with a low volume sprayer or power equipment. Application rate will depend on species present, season applied and volume of spray used. Use a coarse spray to

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avoid drift. Do not apply more than 4.5 gallons product per 100 gallons of spray solution. Do not make more than 1 basal spray or cut surface application per year.

**MODIFIED BASAL TREATMENT:** Drench the base of plants, then wet the lower 4/5 of remaining stems and leaves thoroughly to runoff. Apply treatment when brush is in full foliage. This method can be applied where susceptible species have been controlled by prior sprays and more resistant species, such as maple and oak, remain. Soaking the base of the plant and wetting all stems to runoff is absolutely necessary for complete control. Do not apply more than 4.6 gallons product per 100 gallons of spray solution. Do not make more than 1 basal spray or cut surface application per year.

**EARLY SEASON SPRAYING:** Add 1 to 1-1/8 gallons of this product to 10 gallons of diesel oil and thoroughly mix. Add this mixture to 89 gallons of water.

**DURING DRY WEATHER OR THE LATTER PART OF SPRAYING SEASON:** Add 1-1/8 gallons of this product to 15 gallons of diesel oil and mix thoroughly. Add mixture to 83.5 gallons of water and agitate thoroughly before use to ensure uniform mixing. DO NOT allow mixture to stand more than 1 hour after mixing.

**DORMANT STEM TREATMENT:** Dormant stem treatments of this product, tank mixed with triclopyr, may be used to control susceptible woody plants and vines with < 2 inch diameter stems. Plants with > 2 inch diameter stems may not be controlled and resprouting may occur. This application method works best in dense areas with small diameter brush. Dormant stem treatments of this product may also be used as a chemical side-trim to control lateral branches of larger trees that encroach onto roadside, utility, or other rights-of-way. For root suckering species such as sumac, sassafras and locust, also spray the ground under the plant to cover small root suckers which may not be visible above the soil surface. The combination of this product and triclopyr is especially effective for improved control of black cherry. In western states, apply anytime after woody plants are dormant. In other areas, apply anytime within 10 weeks of bud break, generally February through April.

Mix 8 pints of this product plus 6 to 12 pints of Relegate (or alternative 4 pound a.e. per gallon triclopyr ester product) with 2 to 3 gallons of crop oil concentrate or other recommended oil. Add this mixture to enough water to make 100 gallons of spray solution. Use continuous agitation to maintain mix. Apply in a minimum spray volume of 70 gallons per acre with Radiarc, OC or equivalent nozzles, or handgun to ensure uniform stem coverage.

Broadcast Application: Do not exceed a total spray volume of 85 gallons per acre.

Spot Treatments: Do not exceed a total spray volume of 100 gallons per acre.

When tank mixing, refer to individual product labels for precautionary statements, restrictions, specified rates, approved uses, and a list of weeds, vines and woody plants controlled.

**CUT SURFACE TREATMENT - STUMPS:** This treatment may be used any time of the year; however, it is more effective when applied as quickly as possible after trees are cut. Spray the entire stump, especially exposed roots and bark. A complete soaking is essential for effective control. Use this procedure after original or capital removal. It is the first step towards a chemical brush control program on newly cleared highways and rights-of-way. The spray is most effective and profitable on stumps 3 to 4 inches and larger. Mix 2.25 gallons of this product in 100 gallons of oil per acre. Application should be made with a low volume knapsack sprayer using a solid cone-shaped nozzle medium orifice

**CONCENTRATE STUMP TREATMENT:** For small (up to 3 inch diameter) stems, cut them as close to the ground as possible and apply undiluted product directly from the can to the surface of the freshly cut stump.

**FRILL:** Make a frill using an axe to cut overlapping V-shaped notches in a continuous ring, and cut around the trunk near its base. Cut through the bark, but do not remove the chips. This method is for all trees 5 to 6 inches in diameter and larger. Freshly cut frills can be treated any time of the year. Mix 2.25 gallons of this product in 100 gallons of oil per acre. Pour in as much of the mixture as the frills will hold without wasting the chemical.

**POWERED KNAPSACK BASAL SPRAY:** Mix 2.25 gallons of this product in 100 gallons of fuel oil or kerosene per acre. Apply with a portable knapsack mistblower to lower brush stems. Apply spray to all sides of stems; good root collar coverage is essential. Run knapsack mistblower at 1/4 to 1/3 throttle for best spray delivery and coverage. For maximum drift control, use a basal nozzle attachment. Do not raise spray nozzle above horizontal position.  $c_{c_s}c_c^{c_s}c_c^{c_s}$ 

**FENCE ROW APPLICATION:** To control mixed brush, perennial and annual broadleaf weeds, use one of the application methods such as the foliage stem method described on this label. Some regrowth may be excepted on resistant species such as ash, maple, oak and persimmon.

MIXED BRUSH - UTILITY RIGHTS-OF-WAY: Use 2 to 3-2/5 quarts in 3 to 12 gallons volume per acre. 1 to 4 quarts of fuel oil may be included in this mixture.

SOLID STANDS OF OAK OR ELM: Apply with ground equipment in the spring after hardwoods have just ceveloped

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full sized leaves. The spray season normally runs from early May to mid-June in Texas and California, and from early May to early July in Oklahoma and Northward. See SPRAY DRIFT MANAGMENT section for additional application information.

BRUSH	AMOUNT OF TURF WEED AND BRUSH CONTROL	AMOUNT OF OIL (Gallons)	ADD WATER TO MAKE TOTAL VOLUME (Gallons)
Post, blackjack, oak and winged elm	2/3 gallon	1	5
Sand shinery oak	1/2 to 1 quart	1	3

For maximum control, use higher rate and repeat spray the second year using 1 quart of this product per acre.

#### TURF WEED AND BRUSH CONTROL AND DIABLO HERBICIDE MIXTURES

**HIGH VOLUME STEM FOLIAGE SPRAY:** Mix 3-2/5 quarts of this product with 1 to 2 quarts Diablo (Dicamba) per 100 gallons total spray mix per acre Use this spray to kill brush such as alder, aspen, cherry, sycamore, tulip-poplar, and willow. Use this spray to control species such as oak, ash, elm, pine, spruce, and fir.

**LOW VOLUME STEM FOLIAGE SPRAY:** Ground - Mix 3-2/5 quarts of this product with 1 to 1.5 gallons Diablo (Dicamba) herbicide in 15 to 50 gallons of water per acre to control mixed brush including conifers and ash.

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Observe all restrictions, precautions and limitations on the labeling of each product used in tank mixture.

# FORESTRY

# (Forestry Site Preparation, Forest Roadsides, Brush Control, Established Conifer Release, Christmas Trees, Reforestation Areas)

**FORESTRY SITE PREPARATION:** To reduce competition from mixed trees and brush before planting forest trees, apply 3-2/5 quarts of this product for easy-to-control species such as alder, aspen, hazel, sassafras, sumac, black locust, willow, and other similar species. Apply 3-2/5 quarts of this product to suppress more difficult species such as oak, sweet gum, black gum, hickory and tulip-poplar. Mix with water to make 20 gallons total solution and apply 20 gallons per acre. Do not apply to established plantations as this spray mix will injure planted conifers.

**PINE RELEASE:** To control hardwood brush and release Northern conifers such as red pine, Jack pine, white pine, and white spruce.

Apply 2 to 3-2/5 quarts of this product as a broadcast spray in 10 gallons of water per acre. Make applications in midsummer after pine height growth is complete and the conifer buds are set. This product will control aspen, birch, cherry, alder, hazel, oak, and similar species. This product will not, at these rates, provide satisfactory control of red maple, sugar maple or ash.

#### LIMITATIONS AND RESTRICTIONS FOR FORESTRY:

- For broadcast applications, do not apply more than 6.9 pints of product per acre. Do not make more than 1 application per year.
- For spot treatments do not apply more than 2.3 gallons of product per acre per application. Do not make more than 2 applications per year with a minimum of 30 days between applications. Broadcast application is prohibited at this rate. A spot treatment is defined as a treatment area not greater than 1,000 square feet per acre.

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#### TURF CONTROL

The following is a partial list of weeds controlled by this product:

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Bindweed	False dandelion	Mustard	Speedwell (annual)
Black medic	Fleabane	Oxalis (yellow woodsorrel)	Spurge
Brambles	Florida pusley	Pennywort	Sumac
Buckhorn plantain	Frenchweed	Peppergrass	Vervain
Bull thistle	Ground ivy	Pigweed	Vetch
Burdock	Hawkweed	Plantain (narrow or buckhorn broadleaf)	Violet
Buttercup	Healall	Poison ivy	Wild aster
Canada thistle	Henbit	Poison oak	Wild blackberry
Carolina geranium	Honeysuckle	Poorjoe	Wild carrot
Chickweed (common and mouseear	Jimsonweed	Povertyweed	Wild garlic
Chicory	Knotweed	Purslane	Wild geranium
Clover	Kochia	Ragweed	Wild lettuce
Cocklebur	Kudzu	Sheep sorrel	Wild onion
Cudweed	Lambsquarter	Shepherdspurse	Wild radish
Dandelion	Little starwort	Smartweed	Wild raspberry
_Dock	Mallow,	Soliva	Yarrow
Evening primrose	Morningglory	Sowthistle	

This product is not effective on perennial Veronica or on weed grasses.

Resistant weeds such as Oxalis (yellow woodsorrel), Bindweed and Yarrow should be retreated whenever new growth appears. Control of difficult weeds such as Sheep (red) sorrel, Soliva, and Violet may be only partial.

**PREPARATION OF THE SPRAY:** Fill the spray tank with half of the required amount of water, then add the specified amount of this product with agitation and finally the balance of water with agitation. Apply any time broadleaf weeds are growing actively. Dandelion, Plantain, Wood sorrel and Clover are best treated in the fall or in spring before flower heads develop. Winter weeds such as Chickweed and Henbit should be treated in early spring.

Summer weeds such as Oxalis, Knotweed and Spurge should be sprayed when they are small. Resistant weeds such as Bindweed and Violet may require 3 quarts per 40,000 square feet and should be retreated whenever new growth appears. In areas with extended growing seasons, such as California, treatment in both spring and fall may be needed to control more resistant species.

On turf to be over-seeded in the fall, treatment should be scheduled at least 4 weeks before the planned seeding date. Rainfall (1/4 inch or more) or irrigation should occur prior to seeding. Fall-seeded lawns may be treated the following spring.

Spring-seeded lawns may be treated after the grasses have sprouted and been cut at least twice, generally 6 to 10 weeks after seeding, depending on germination and growth rate.

For established lawns, fall treatment fits into a good turf management program. Proper fertilization and mowing should be combined with chemical weed control to thicken the turf after the weeds have died and to discourage move weeds from invading. Do not apply more than 2 applications per year.

HOSE ATTACHED SPRAYERS (LAWN MODELS): Use 1.5 tablespoons of this product diluted with water to the 3 to 5 gallon mark on the sprayer jar for each 500 square feet (25 feet x 20 feet) of lawn area to be sprayed. Adjust water pressure so that spray streams about 10 to 15 feet with no misting.

AMOUNTS OF TURF WEED AND BRUSH CONTROL TO USE	AREA COVERED (Square Feet)	WATER VOLUME (Gallons)
1.5 ounces	1,000	1
8 ounces	5,000 `	5
8 ounces	10,000	10
2 quarts	40,000	40
3 quarts (resistant weeds)	40,000	40

This treatment may injure bentgrass, St. Augustinegrass, centipedegrass, carpetgrass and newly seeded lawns. If necessary to control weeds in such turf, use half the specified rate in chart and repeat application in 2 to 3 weeks. Do not apply to Lippia, Dichondra and where desirable Clovers are present nor on bentgrass greens and tees as severe turf injury may result. Do not use this product to control weeds in flower and vegetable beds, shrubs and ornamental plantings. Spray when air is calm to avoid spray drift that might injure nearby desirable plants. A separate sprayer should be kept for killing weeds, as 2,4-D and related chemicals are difficult to clean from equipment.

Ornamental Turf (such as Lawns (Residential, Industrial and Institutional), Parks, Cemeteries, Athletic Fields and Golf Courses (Fairways, Aprons, Tees and Roughs) and other grass areas):

- For broadcast treatments, do not apply more than 3.5 quarts product per acre per application. Do not make more than 2 applications per year with a minimum of 30 days between applications. Do not apply more than 7 quarts product per acre per season.
- For spot treatments do not apply more than 2.3 gallons of product per acre per application. Do not make more than
  2 applications per year with a minimum of 30 days between applications. Broadcast application is prohibited at this
  rate. A spot treatment is defined as a treatment area not greater than 1,000 square feet per acre.

#### Sod Farms:

- For broadcast treatments, do not apply more than 3.5 quarts product per acre per application. Do not make more than 2 applications per year with a minimum of 30 days between applications. Do not apply more than 7 quarts product per acre per season.
- For spot treatments do not apply more than 2.3 gallons of product per acre per application. Do not make more than
  2 applications per year with a minimum of 30 days between applications. Broadcast application is prohibited at this
  rate. A spot treatment is defined as a treatment area not greater than 1,000 square feet per acre.

**NOTE:** Local conditions and application regulations vary and may affect use of this herbicide. Consult local Agricultural Experiment Station or Extension Service weed specialist and State regulatory agencies for advice in your area.



# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Always use original container to store pesticides in a secured warehouse or storage building. Containers should be opened in well ventilated areas. Keep container tightly sealed when not in use. Do not stock cardboard cases more than two pallets high. Do not store near open containers of fertilizer, seed or other pesticides. Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law and may contaminate groundwater. If container is damaged or if pesticide has leaked contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed labeled container for proper disposal. 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:

[Note to Reviewer: The following statement will be included on all Final Printed Labels bearing multiple Container Disposal (Container Handling) statements] "NOTE: This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container disposal [handling] instructions below that apply to your container type / size."

[Note to Reviewer: The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

#### [Nonrefillable Containers 5 Gallons or Less:]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

#### [Nonrefillable containers larger than 5 gallons:]

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows**: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows**: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Neveral times tank or collect rinsate for later use or disposal. Hold container on mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

# [Refillable containers larger than 5 gallons:]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSELICE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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