

524-535 4.11.2007

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Dawn Fee-White  
Registration Manager  
Monsanto Company  
1300 I Street, NW – Suite 450 East  
Washington, DC 20005

APR 11 2007

SUBJECT: Application for Pesticide Notification – Tank Mix Name Change/Warranty  
MON 78365/QuikPRO Herbicide  
EPA Reg. No. 524-535  
Application Dated November 20, 2006

Dear Ms. Fee-White:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above 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, please me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

MONSANTO



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MONSANTO COMPANY  
300 I (EYE) STREET, NW  
SUITE 450 EAST  
WASHINGTON, D.C. 20005  
PHONE (202) 383-2866  
FAX (202) 789-1748  
<http://www.monsanto.com>

November 20, 2006

Document Processing Desk (NOTIF)  
Registration Division - H7505C  
U.S. Environmental Protection Agency  
1801 South Bell Street  
Crystal Mall #2, Room 266A  
Arlington, Virginia 22202-4501

**NOTIFICATION**

APR 11 2007

Attention: Mr. James A. Tompkins  
Product Manager 25

Subject: **MON 78365 Herbicide, QuikPRO Herbicide; EPA Reg. No. 524-535**  
**Notification of Tank Mix Brand Name Change**

Dear Mr. Tompkins:

Monsanto herein notifies the Agency of a brand name change in the tank mix section of the June 19, 2006 stamped label. The tank mix listing in section 8.1 under General Weed Control, Trim-and-Edge and Bare Ground, lists Manage and this has been changed to list Certainty.

This document also includes the revisions to the Limit of Warranty and Liability as requested in the cover letter of the June 19 approval.

*This notification with minor revisions is consistent with the provision of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.*

If you should have any questions regarding this submission, please call Dr. Russell P. Schneider at (202) 383-2866 or call me at (314) 694-6576.

Sincerely,

Dawn Fee-White  
Registration Manager

Cc: Russ Schneider

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval Expires 2-28-95



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number  
303852

**Application for Pesticide - Section I**

1. Company/Product Number Monsanto Company / 524-535	2. EPA Product Manager James A. Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) MON 78365/QuikPRO Herbicide	PM # 25	
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 1300 I (Eye) Street, NW - Suite 450 East Washington, DC 20005 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated	<b>NOTIFICATION</b>  APR 11 2007
<input type="checkbox"/> Resubmission in response to Agency letter dated	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For section I and Section II.)  
Notification of Tank Mix Brand Name Change

REGULATORY.AFFAIRS@MONSANTO.COM

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)		
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per Container	If "Yes" Package wgt. No. per Container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Russell P. Schneider, Ph.D.	Title Director, Regulatory Affairs	Telephone No. (Include Area Code) (202) 383-2866
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Dawn Fee-White / HH</i>	3. Title Registration Manager	
4. Typed Name Dawn Fee-White	5. Date November 20, 2006	

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MASTER LABEL FOR EPA REG. NO. 524-535

**NOTIFICATION**

**APR 11 2007**

Registered Brand Names:

MON 78365 Herbicide  
QuikPRO Herbicide

Alternate text for brand logo: Powered by Roundup Technology

**Complete Directions for Use**

EPA Reg. No. 524-535

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS, OR DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Read the entire label before using this product.

Use only according to label instructions.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION OR REPACKAGING.

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**1.0 INGREDIENTS**

ACTIVE INGREDIENTS:

* Glyphosate, N-(phosphonomethyl)glycine, in the form of its ammonium salt.....	73.3%
Diquat dibromide [6,7-dihydrodipyrido (1,2-a:2',1'-c) pyrazinediium dibromide] .....	2.9%
OTHER INGREDIENTS:.....	<u>23.8%</u>
	100.0%

\* Equivalent to 66.6% of the acid, glyphosate

1.0 pound of [INSERT BRAND NAME] herbicide contains 0.73 pound of the ammonium salt of glyphosate and 0.03 pound of the dibromide salt of diquat.

This product is protected by U.S. Patent No. 7,008,904. Other patent pending. No license granted under any non-U.S. patent(s).

**2.0 IMPORTANT PHONE NUMBERS**

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT,  
CALL TOLL-FREE,  
1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT, OR FOR MEDICAL  
ASSISTANCE, CALL COLLECT, DAY OR NIGHT,  
(314)-694-4000.

**3.0 PRECAUTIONARY STATEMENTS**

**3.1 Hazards to Humans and Domestic Animals**

Keep out of reach of children.

**CAUTION!**

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HARMFUL IF SWALLOWED.

HARMFUL IF INHALED.

CAUSES MODERATE EYE IRRITATION.

Avoid breathing dust or spray mist.

Avoid contact with eyes or clothing.

Remove contaminated clothing and wash clothing before reuse.

Wash thoroughly with soap and water after handling.

<b>FIRST AID</b>	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call a physician or Poison Control Center for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a Poison Control Center or physician.</li> <li>• Do not give anything by mouth to an unconscious person.</li> <li>• <b>Quick treatment is essential to counteract poisoning</b> and should be initiated before signs and symptoms of injury appear.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or physician for further treatment advice.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• 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 eye.</li> <li>• Call a Poison Control Center or physician for treatment advice.</li> </ul>
<ul style="list-style-type: none"> <li>• Have the product container or label with you when calling a poison control center or physician, or going for treatment.</li> <li>• You may also contact <b>(314) 694-4000</b>, collect day or night, for emergency medical treatment information.</li> <li>• This product is identified as <b>[INSERT BRAND NAME], EPA Registration No. 524-535.</b></li> </ul>	

**DOMESTIC ANIMALS:** Keep livestock and pets out of treated areas. Do not graze livestock on treated areas. This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

**Personal Protective Equipment (PPE)**

**Applicators and other handlers must wear:** Long-sleeved shirt and long pants, protective footwear plus socks, and protective eyewear. Discard clothing and other materials that have been heavily contaminated with this product's concentrate. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

<p><b>User Safety Recommendations</b></p> <p>Users should:</p> <ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> </ul>
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- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 3.2 Environmental Hazards

This product is toxic to aquatic invertebrates. 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 cleaning equipment or disposing of equipment washwaters.

### 3.3 Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any 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 regulations.

Keep all unprotected persons out of operating areas or vicinity where there may be drift.

Keep people and pets off treated areas until spray solution has dried.

### 4.0 STORAGE AND DISPOSAL

**PESTICIDE STORAGE:** Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

**CONTAINER DISPOSAL:** Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

[*optional:* See container label for additional PESTICIDE STORAGE AND DISPOSAL instructions.]

### [ALTERNATE CONTAINER LABEL DISPOSAL STATEMENTS BY CONTAINER TYPE]

#### [FOR PLASTIC 1-WAY CONTAINERS & BOTTLES]

Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### [FOR REFILLABLE PORTABLE CONTAINERS]

This container must only be refilled with pesticide product. **Do not reuse this container for any other purpose.** Final disposal must be in compliance with state and local regulations. If not refilled, returned, or recycled, triple rinse or pressure rinse, puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Do not transport this container if it is damaged or leaking. If the container is damaged, leaking or obsolete, or to obtain information about recycling portable refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387).

**Users:** When the container is empty, replace the cap and seal all openings that have been made during usage, and return the container to the point of purchase, or to an alternate location designated by the manufacturer at the time of purchase of this product. If not returned, triple rinse or pressure rinse the empty container and offer it for recycling if available.

**Refillers:** Do not reuse this mini-bulk container except for refill in accordance with a valid Monsanto Repackaging or Toll Repackaging Agreement. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting.

[FOR BULK CONTAINERS]

Triple rinse emptied bulk container. Then offer for recycling or reconditioning, or dispose of in a manner approved by state and local authorities.

## 5.0 GENERAL INFORMATION

### (HOW THIS PRODUCT WORKS)

**Product Description:** This product is a postemergence, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble granule containing surfactant and no additional surfactant is needed or recommended. It may be applied through most standard sprayers after dissolution and thorough mixing with water according to label instructions.

**Time to Symptoms:** This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 1 day, and on most perennial weeds in 2 days. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a quick yellowing of the foliage which advances to complete browning of above-ground growth and deterioration of underground plant parts.

**Mode of Action:** One of the active ingredients in this product inhibits an enzyme found only in plants and microorganisms that is essential to formation of specific amino acids. A second active rapidly disrupts cell integrity of photosynthetically active tissues in the contacted foliage.

**Cultural Considerations:** Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

**Rainfastness:** Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

**Spray Coverage:** For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

**No Soil Activity:** Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow.



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**Tank Mixing:** This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

**Annual Maximum Use Rate:** For non-crop uses, the combined total of all treatments must not exceed 12.25 pounds of this product per acre per year.

**ATTENTION**

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS, OR DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to desirable plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

**NOTE:** Use of this product in any manner not consistent with this label may result in injury to persons, animals or desirable plants, or other unintended consequences. Keep container closed to prevent spills and contamination.

**6.0 MIXING**

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

**NOTE:** REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

**6.1 Procedure for Preparing Spray Solution**

Use the following procedure to mix this product in water alone or when preparing tank mixtures with other labeled products. .

1. Place a 20- to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. Add [INSERT BRAND NAME] herbicide using a circular motion while pouring.
4. If second product is a wettable powder, first make a slurry with the water carrier, then add the slurry SLOWLY through the screen into the tank. Continue agitation.
5. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.

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6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
7. Continue filling the spray tank with water and add water soluble liquids near the end of the filling process.

When tank mixing [INSERT BRAND NAME] herbicide with other products, maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50-mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Refer to the **Tank Mixing** section of **GENERAL INFORMATION** for additional precautions.

### 6.2 Mixing for Hand-Held Sprayers

Prepare the desired volume of spray solution by adding the desired amount of this product as shown in the following table to a clean, empty sprayer. Add the appropriate amount of water and stir or agitate to ensure dissolution of [INSERT BRAND NAME] herbicide. For use in backpack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

#### Spray Solution

Amount of [Insert brand name] herbicide

Desired Volume	Annuals	Perennials	Brush	Low-Volume Directed
1 Gal	1.2 oz	1.5 oz	1.5 oz	4.0 oz to 8.0 oz
3 Gal	3.6 oz	4.5 oz	4.5 oz	12.0 oz to 1.5 lb
10 Gal	12.0 oz	15.0 oz	15.0 oz	2.5 lb to 5.0 lb

### 6.3 Colorants or Dyes

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations. Certain blue dyes are not stable in the spray solution in the presence of this product. A jar test to determine if the desired blue dye is stable is recommended. If stability is a problem consider switching to an alternate color dye.

### 6.4 Drift Control Additives

Drift control additives may be used with all equipment types. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

## 7.0 APPLICATION EQUIPMENT AND TECHNIQUES

### SPRAY DRIFT MANAGEMENT

**AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS.**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

**Do not apply this product by air.**

Do not apply this product through any type of irrigation system.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to desirable plants or other areas on which treatment was not intended.

**APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.**

**7.1 Ground Broadcast Equipment**

Use the recommended rates of this product in 10 to 80 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

**7.2 Backpack or Hand-Held Equipment**

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the **Annual Weeds** section of the **WEEDS CONTROLLED** section, apply 1.2 ounces of this product per 1 gallon of spray solution. See table in **Mixing for Hand-Held Sprayers** section for larger mixing volumes.

For best results, use 1.5 ounces of this product per 1 gallon of spray solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle. See table in **Mixing for Hand-Held Sprayers** section for larger mixing volumes.

For low-volume directed spray applications, use 4.0 to 8.0 ounces of this product per 1 gallon of spray solution for control or partial control of brush weeds. See table in **Mixing for Hand-Held Sprayers** section for larger mixing volumes. Spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of brush and tree seedlings when foliage is thick and dense, or where there are multiple sprouts.

**7.3 CDA Equipment (optional section)**

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For hand-held CDA units, apply a solution of 1.5 to 2.0 pounds of this product in one gallon of water at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 miles per hour.

CDA equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction is likely to result.

**8.0 SITE AND USE RECOMMENDATIONS**

Detailed instructions follow alphabetically, by site.

Unless otherwise specified, applications may be made to control any weeds listed in the annual, perennial and brush weeds and tree seedlings tables.

**8.1 General Non-crop Areas and Industrial Sites**

Use in non-crop and non-timber areas only, such as airports, apartment complexes, ditch banks, dry ditches, dry canals, fencerows, golf courses, lumberyards, manufacturing sites, office

complexes, parks, parking areas, recreational areas, residential areas, schools, storage areas, warehouse areas, other public areas, and similar industrial and non-crop sites.

This product is **not** for use on crops, timber, or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

**General Weed Control, Trim-and-Edge and Bare Ground**

This product may be used in general non-crop areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around objects in non-crop sites, for spot treatment of unwanted vegetation, and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects. This product is **not** for use on plants grown for sale or other commercial use, or for commercial seed production.

Repeated applications of this product may be used as weeds emerge to maintain bare ground.

This product may be tank mixed with the following products. Refer to these products' labels for approved non-crop sites and application rates.

- BANVEL
- BARRICADE™ 65WG
- DIMENSION™ 4 EC
- ENDURANCE™
- MANAGE®-CERTAINTY®
- PENDIMETHALIN
- PENDULUM™ 3.3 EC
- PENDULUM WDG
- RONSTAR™ 50WP
- SURFLAN™
- 2,4-D

When applied as a tank mixture for bare ground, [INSERT BRAND NAME] herbicide provides control of the emerged annual weeds and control or partial control of emerged perennial weeds.

**Dormant Turfgrass**

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Treat only when turf is dormant and prior to spring greenup. This product is **not** for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.

Apply 5 to 16 ounces of this product per acre. Apply the recommended rates in 10 to 80 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 9 ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns.

**Turfgrass Renovation (Except for Commercial Sod Farms)**

This product controls most existing vegetation prior to renovating turfgrass areas. This product is not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. **Do not**

use this product for renovation of bermudagrass or kikuyugrass sods. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow translocation into underground plant parts.

Desirable turfgrasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass.

Do not feed or graze treated turfgrass or feed treated thatch to livestock.

**8.2 Parks, Recreational and Residential Areas**

This product may be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around trees, fences, paths, around buildings, sidewalks, and other objects in these areas. This product may be used for spot treatment of unwanted vegetation. This product may be used to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

All of the instructions in the **General Non-Crop Areas and Industrial Sites** section apply to park and recreational areas. This product is not for use around plants being grown for sale or other commercial use.

**9.0 WEEDS CONTROLLED**

Always use the higher rate of this product per acre within the recommended range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area.

Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for recommended rates for the control of annual and perennial weeds. For difficult to control perennial weeds and where plants are growing under stressed conditions, or where infestations are dense, this product may be used at up to 12.25 pounds per acre for enhanced results.

**9.1 Annual Weeds**

Use 2.25 to 4.5 pounds per acre of this product as a broadcast spray to control annual weeds. When using rates less than 4.5 pounds per acre, the level of fast-burn symptomology may be reduced.

For spray-to-wet applications, apply 1.2 ounces of this product per 1 gallon of spray solution.

**WEED SPECIES**

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- Anoda, spurred
- Barley\*
- Barnyardgrass\*
- Bassia, fivehook
- Bittercress\*
- Black nightshade\*
- Bluegrass, annual\*
- Bluegrass, bulbous\*
- Brome, downy\*
- Brome, Japanese\*
- Browntop panicum\*
- Buttercup\*

Carolina foxtail\*  
 Carolina geranium  
 Castor bean  
 Cheatgrass\*  
 Cheeseweed (*Malva parviflora*)  
 Chervil\*  
 Chickweed\*  
 Cocklebur\*  
 Copperleaf, hophornbeam  
 Corn\*  
 Corn speedwell\*  
 Crabgrass\*  
 Dwarf dandelion\*  
 Eastern manna grass\*  
 Eclipta\*  
 Fall panicum\*  
 Falsedandelion\*  
 Falseflax, smallseed\*  
 Fiddleneck  
 Field pennycress\*  
 Filaree  
 Fleabane, annual\*  
 Fleabane, hairy (*Conyza bonariensis*)\*  
 Fleabane, rough\*  
 Florida pusley  
 Foxtail\*  
 Goatgrass, jointed\*  
 Goosegrass  
 Grain sorghum (milo)\*  
 Groundsel, common\*  
 Hemp sesbania  
 Henbit  
 Horseweed/Marestail (*Conyza canadensis*)  
 Itchgrass\*  
 Johnsongrass, seedling  
 Junglerice  
 Knotweed  
 Kochia  
 Lambsquarters\*  
 Little barley\*  
 London rocket\*  
 Mayweed  
 Medusahead\*  
 Morningglory (*Ipomoea spp.*)  
 Mustard, blue\*  
 Mustard, tansy\*  
 Mustard, tumble\*  
 Mustard, wild\*  
 Oats  
 Pigweed\*  
 Plains/Tickseed coreopsis\*  
 Prickly lettuce\*  
 Purslane, common  
 Ragweed, common\*  
 Ragweed, giant  
 Red rice

- Russian thistle
- Rye\*
- Ryegrass\*
- Sandbur, field\*
- Shattercane\*
- Shepherd's-purse\*
- Sicklepod
- Signalgrass, broadleaf\*
- Smartweed, ladysthumb\*
- Smartweed, Pennsylvania\*
- Sowthistle, annual
- Spanishneedles
- Speedwell, purslane\*
- Sprangletop\*
- Spurge, annual
- Spurge, prostrate\*
- Spurge, spotted\*
- Spurry, umbrella\*
- Starthistle, yellow
- Stinkgrass\*
- Sunflower\*
- Teaweed/ Prickly sida
- Texas panicum\*
- Velvetleaf
- Virginia copperleaf
- Virginia pepperweed\*
- Wheat\*
- Wild oats\*
- Witchgrass\*
- Woolly cupgrass\*
- Yellow rocket

\* When using field broadcast equipment (boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled. Applications must be made using 10 to 80 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

**9.2 Perennial Weeds**

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the recommended range.

Use 4.5 to 9.0 pounds per acre of this product as a broadcast spray to control perennial weeds. When using rates less than 9.0 pounds per acre, the level of fast-burn symptomology may be reduced.

For spray-to-wet applications, apply 1.5 ounces of this product per 1 gallon of spray solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

When using hand-held equipment for low-volume directed spot treatments, apply 4.0 to 8.0 ounces of this product per 1 gallon of spray solution.

Allow 7 or more days after application before tillage.

**Weed Species**

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- Alfalfa\*
- Alligatorweed\*
- Anise (fennel)
- Bahiagrass
- Beachgrass, European (*Ammophila arenaria*)
- Bentgrass\*
- Bermudagrass\*
- Bermudagrass, water (knotgrass)
- Bindweed, field
- Bluegrass, Kentucky
- Blueweed, Texas
- Bromegrass, smooth
- Bursage, woolly-leaf
- Canarygrass, reed
- Cattail
- Clover; red, white\*
- Cogongrass
- Dallisgrass
- Dandelion
- Dock, curly
- Dogbane, hemp
- Fescue
- Fescue, tall
- German ivy
- Guineagrass
- Horsenettle
- Horseradish
- Iceplant
- Jerusalem artichoke
- Johnsongrass
- Kikuyugrass\*
- Knapweed
- Lantana
- Lespedeza
- Milkweed, common
- Muhly, wirestem
- Mullein, common
- Napiergrass
- Nightshade, silverleaf
- Nutsedge; purple, yellow
- Orchardgrass
- Pampasgrass
- Paragrass
- Pepperweed, perennial
- Phragmites\*
- Poison hemlock
- Quackgrass
- Redvine\*
- Reed, giant
- Ryegrass, perennial
- Spurge, leafy\*
- Thistle, artichoke
- Thistle, Canada



Timothy  
Torpedograss\*  
Trumpet creeper\*  
Vaseygrass  
Velvetgrass  
Wheatgrass, western

\*Partial control

**9.3 Brush Weeds and Tree Seedlings**

Best results are obtained when brushweeds are treated when they are in the seedling stage of growth. In many situations, re-treatment is required on larger plants. Under these conditions, use the higher application rate within the recommended range.

Use 9.0 pounds per acre of this product as a broadcast spray to control brush weeds.

For spray-to-wet applications, apply 1.5 ounces of this product per 1 gallon of spray solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

When using hand-held equipment for low-volume directed spot treatments, apply 4.0 to 8.0 ounces of this product per 1 gallon of spray solution.

Allow 7 or more days after application before tillage.

**Weed Species**

- Alder
- Ash\*
- Beech\*
- Birch
- Blackberry
- Blackgum
- Cherry; bitter, black, pin
- Dogwood\*
- Elderberry
- Elm\*
- Honeysuckle
- Locust, black\*
- Maple, red
- Maple, sugar
- Oak, black\*
- Oak, northern pin
- Oak, post
- Oak, red
- Oak, scrub\*
- Oak, southern red
- Oak, white\*
- Peppertree, Brazilian (Florida holly)\*
- Pine
- Poison ivy\*
- Poison oak\*
- Poplar, yellow\*
- Redbud, eastern
- Rose, multiflora
- Saltcedar\*

Sumac; laurel, poison, smooth, sugarbush, winged\*  
Sweetgum  
Vine maple\*  
Virginia creeper  
Waxmyrtle, southern\*

\* Partial Control

**10.0 LIMIT OF WARRANTY AND LIABILITY**

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

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