

## **PLEASE NOTE**

**This image contains more than one label approved for this product on this date.**

524-343

6/17/2009

1 of 169



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

AND

OFFICE OF  
PREVENTION, PESTICIDES  
TOXIC SUBSTANCES

JUN 17 2009

Ms. Dawn M. Fee-White  
Monsanto Company, Lawn and Garden Products  
1300 I Street, N.W., Suite 450 East  
Washington, DC 20005

Dear Ms. Fee-White:

Subject: Roundup Custom Herbicide (Update Master Label)  
AquaMaster Herbicide  
EPA Registration No. 524-343  
Application Dated April 8, 2009

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable provided you make the following changes before you release the product for shipment.

1. On pages 2, 77, and 127, revise the first sentence of the seventh paragraph to read "Not all products **listed** on this label are registered for use in California.
2. On pages 6 and 80, in the Non-Agricultural Use Requirements box, delete the phrase "to prevent transfer of this product onto desirable vegetation" from the second sentence.
3. There are several areas in the label where phrases such as "recommended range", "recommended rates", "recommended rate range", "rate recommendations" or "recommended amount" appear. These phrases must be changed to read similar to "specified range", labeled (or specified) rates", "specified rate range" or "specified amount". The phrases may be modified as necessary.
4. On page 9, under Stage of Weeds, revise the last sentence in the first paragraph to read "Refer to "Annual Weeds", "Perennial Weeds" and "Woody Brush and Trees Rate Tables for **instructions** for specific weeds.
5. On pages 10, under Tank Mixing, revise the second paragraph to read "When this label **lists** a tank mixture with a generic active ingredient..."
6. On pages 12, 87, and 135 under Colorants or Dyes, revise the last sentence to read "Use colorants or dyes according to the manufacturer's **instructions**."

Page 2

EPA Registration No. 524-343

7. On page 12, under Aerial Equipment, revise the last sentence in the second paragraph to read “Refer to the individual use area sections of this label for **specified** volumes, application rates, and further instructions.
8. On page 14, under Selective Equipment, revise the last sentence of the second paragraph to read “Wipers over-the-top of crops may be used only when **specified** in this product’s labeling.
9. On page 32, under Citrus, Use Instructions, revise the first sentence to read “(The **instructions** below pertain to Florida and Texas)”.
10. On page 39, under Note, revise the first sentence to read “The following **instructions** are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. Also, delete the word “recommended” from the second sentence and reword as necessary.
11. On page 43, under Postemergence, revise the last sentence to read “To control giant ragweed, apply 1.5 pints of this product per acre when the weed is 8-12 inches tall to increase control and possibly avoid the need for a sequential application.
12. On page 67, revise the heading “Specific Mixing Recommendations” to read “Specific Mixing **Instructions**”.
13. On page 68, revise the fourth paragraph to read “When applied as **directed** under the conditions described,…”
14. On page 72, supplemental M, delete the word “recommended” from the last sentence in the first paragraph. The sentence may be modified as necessary.
15. On page 73, under note revise the current rotational crop statement to state that a 30-day crop rotation restriction is necessary for any crop not on this product’s label.
16. On page 75, Supplemental P, revise the second sentence to read “For tank-mix **instructions**, read and carefully observe the cautionary statements…”
17. On pages 85 and 134 under section 5.2, the third sentence revise “ofbiotypes” to read “of biotypes”.
18. On page 86, under Tank Mixtures, revise the third paragraph to read “When this label **lists** a tank mixture with a generic active ingredient…”
19. On page 93, delete the chart under Cut Stump.

Page 3

EPA Registration No. 524-343

20. On page 95, under Note, revise the first sentence beneath the chart by deleting the word "recommended" and revising the sentence as necessary.
21. On page 103, under Utility Sites, revise the second paragraph to read "This product also **may be used** in preparing or establishing..."
22. On page 103, under Utility Sites, revise the Note to read "For side trimming treatments, this product **may be used** alone or in tank mixture with Garlon 4.
23. On pages 126 and 165, revise the headings "Recommendations" within the supplemental labels to read "Directions for Use" or "Instructions"..
24. On page 132, under Stage of Weeds, revise the second sentence to read "Refer to the "Weeds Controlled" sections for specific weed **instructions**."
25. On page 143, under General Non-crop Areas and Industrial Sites, delete the phrase "other public areas" and replace with a list of specific use sites.

Please submit one copy of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling supersedes all previously approved ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

*Viki K. Walters for*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

**MASTER LABEL FOR EPA REG. NO. 524-343**

Registered Brand Names:

**Roundup Custom Herbicide  
AquaMaster Herbicide**

Table of Contents for Master Label

I.	Main Label for Food Crop Uses	Page 2
II.	Supplemental Labeling for Food Crop Uses	Page 71
III.	Main Label for Industrial, Turf, & Ornamental and Forestry Uses	Page 73
IV.	Supplemental Labeling for Industrial, Turf, & Ornamental and Forestry Uses	Page 119
V.	Main Label for Aquatic and Other Non-Crop Uses	Page 126
VI.	Supplemental Labeling for Aquatic and Other Non-Crop Uses	Page 160

\*\*See each label section for more detailed table of contents\*\*

**NOTE TO REVIEWER:** Only minor editorial changes have been made this submission to the Crop Use Section or Crop Use Supplemental section as this product is dormant in those markets. Changes and updates to Non-Crop and Aquatic uses and supplemental labels only beginning on page 73.

U.S. DEPARTMENT OF AGRICULTURE

OFFICE OF PESTICIDE REGULATION

**I. MAIN LABEL FOR FOOD CROP USES**

**[INSERT BRAND NAME]**

Herbicide

**Complete Directions for Use**

EPA Reg. No. 524-343

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY® CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Herbicide for Roundup Ready® Crops.

Selective broad-spectrum weed control in Roundup Ready crops. Non-selective, broad-spectrum weed control for many agricultural systems, farmsteads and Conservation Reserve Program acres.

Transorb™

A member of the Roundup Family of Herbicides by Monsanto

“The President’s Green Chemistry Award was presented in 1996 to Monsanto for its innovative “zero-waste” process in the manufacture of Roundup Herbicide.”

Not all products recommended on this label are registered for use in California. Check the registration status of each product in California before using.

Read the entire label before using this product.

Use only according to label instructions.

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

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. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

Refillable Container Label Statement:

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. IT IS INTENDED THAT REPACKAGING BE ONLY IN ACCORDANCE WITH A MONSANTO REPACKAGING OR TOLL REPACKAGING AGREEMENT.

Non-refillable Container Label Statement:

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

**CONTENTS**

<b>1</b>	<b>1.0</b>	<b>INGREDIENTS</b>
<b>2</b>	<b>2.0</b>	<b>IMPORTANT PHONE NUMBERS</b>
<b>3</b>	<b>3.0</b>	<b>PRECAUTIONARY STATEMENTS</b>
	<b>3.1</b>	<b>Hazards to Humans and Domestic Animals</b>
	<b>3.2</b>	<b>Environmental Hazards</b>

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I. MAIN LABEL FOR FOOD CROP USES

- 3.3 Physical or Chemical Hazards
- 4 4.0 **STORAGE AND DISPOSAL**
- 5 5.0 **GENERAL INFORMATION**  
**(How This Product Works)**
- 6 6.0 **MIXING**
  - 6.1 Mixing with Water
  - 6.2 Tank Mixing Procedure
  - 6.3 Mixing for Hand-Held Sprayers
  - 6.4 Surfactants
  - 6.5 Ammonium Sulfate
  - 6.6 Colorants or Dyes
  - 6.7 Drift Reduction Additives
- 7 7.0 **APPLICATION EQUIPMENT AND TECHNIQUES**
  - 7.1 Aerial Equipment
  - 7.2 Ground Broadcast Equipment
  - 7.3 Hand-Held or High-Volume Equipment
  - 7.4 Selective Equipment
  - 7.5 Injection Systems
  - 7.6 CDA Equipment
- 8 8.0 **ANNUAL AND PERENNIAL CROPS (Alphabetical)**
  - 8.1 Cereal and Grain Crops
  - 8.2 Corn
  - 8.3 Cotton
  - 8.4 Fallow Systems
  - 8.5 Grain Sorghum (Milo)
  - 8.6 Herbs and Spices
  - 8.7 Oil Seed Crops
  - 8.8 Soybeans
  - 8.9 Sugarcane
  - 8.10 Vegetable Crops
  - 8.11 Miscellaneous Crops
- 9 9.0 **TREE, VINE, AND SHRUB CROPS (Alphabetical)**
  - 9.1 Berry Crops
  - 9.2 Citrus
  - 9.3 Miscellaneous Tree Food Crops
  - 9.4 Non-Food Tree Crops
  - 9.5 Pome Fruit
  - 9.6 Stone Fruit
  - 9.7 Tree Nuts

I. MAIN LABEL FOR FOOD CROP USES

- 9.8 Tropical and Subtropical Trees and Fruits
- 9.9 Vine Crops
- 10 10.0 PASTURE GRASSES, FORAGE LEGUMES, AND RANGELANDS**
  - 10.1 Alfalfa, Clover, and Other Forage Legumes
  - 10.2 Conservation Reserve program (CRP)
  - 10.3 Grass Seed or Sod Production
  - 10.4 Pastures
  - 10.5 Rangelands
- 11 11.0 ROUNDUP READY CROPS**
  - 11.1 Canola with the Roundup Ready Gene
  - 11.2 Corn with the Roundup Ready Gene
  - 11.3 Cotton with the Roundup Ready Gene
  - 11.4 Soybeans with the Roundup Ready Gene
  - 11.5 Sugar beets with the Roundup Ready Gene
- 12 12.0 NON-CROP USES AROUND THE FARMSTEAD**
  - 12.1 General Weed Control and Trim-And-Edge
  - 12.2 Greenhouse/Shadehouse
  - 12.3 Chemical Mowing
  - 12.4 Cut Stump
  - 12.5 Habitat Management
- 13 13.0 ANNUAL WEEDS RATE TABLE**  
**(Alphabetically by Species)**
  - 13.1 Annual Weeds -- Rates for Higher Water Carrier Volumes
  - 13.2 Annual Weeds -- Tank Mixtures with 2,4-D, Dicamba, or Tordon 22K
  - 13.3 Annual Weeds -- Hand-Held or High-Volume Equipment
  - 13.4 Annual Weeds - Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems
- 14 14.0 PERENNIAL WEEDS RATE TABLE**  
**(Alphabetically by Species)**
- 15 15.0 WOODY BRUSH AND TREES RATE TABLE**  
**(Alphabetically by Species)**
- 16 16.0 LIMIT OF WARRANTY AND LIABILITY**

**1.0 INGREDIENTS**

ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt..... 53.8%

OTHER INGREDIENTS: ..... 46.2%

100.0%

\*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4.0 pounds per U.S. gallon of the acid, glyphosate.

I. MAIN LABEL FOR FOOD CROP USES

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 HERBICIDE PRODUCT, OR FOR MEDICAL  
ASSISTANCE, CALL COLLECT, DAY OR NIGHT,

(314)-694-4000

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:

JUN 17 2009

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

524-343

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

**CAUTION!**

DOMESTIC ANIMALS: 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, shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE (Personal Protective Equipment). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in 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.

<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> <li>• Remove contaminated clothing and wash clothing before reuse.</li> </ul>
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3.2 Environmental Hazards

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.

909169

I. MAIN LABEL FOR FOOD CROP USES

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental 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.

**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 4 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, are: coveralls, shoes plus socks, and chemical resistant gloves made of any waterproof material.

**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.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

**4.0 STORAGE AND DISPOSAL**

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal.

**PESTICIDE STORAGE:** STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.

[Alternate PESTICIDE DISPOSAL statement for transport vehicles only: To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

**CONTAINER HANDLING AND DISPOSAL:** See container label for container handling and disposal instructions and refilling limitations.

[CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS]

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I. MAIN LABEL FOR FOOD CROP USES

**[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY]**

Nonrefillable container. Do not reuse or refill this container.

*[Alternate container statement: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]*

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

*[Alternate container disposal statement: Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]*

**[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY]**

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

*[Alternate container statement: Nonrefillable container. Do not reuse or refill this container.]*

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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. 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.

Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

*[Alternate container disposal statement: Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and*

I. MAIN LABEL FOR FOOD CROP USES

procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

**[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 5-GALLON CAPACITY]**

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one 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 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. 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.

Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-768-6387.]

**[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT CONTAINERS]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available. To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-768-6387.

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Contact 1-800-768-6387.]

I. MAIN LABEL FOR FOOD CROP USES

[CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT CONTAINERS AS DEFINED IN 40 CFR 156.3]

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

5.0 GENERAL INFORMATION

(How This Product Works)

**Product Description:** This product is a postemergent, 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 liquid. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water or other carriers according to label instructions.

This product requires the use of a nonionic surfactant. See the "SURFACTANTS" section of this label for further instructions on the use of surfactants, and see the "MIXING" section of this label for instructions regarding other additives.

**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 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES" for recommendations for specific weeds.

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.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

**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.

**Mode of Action:** The active ingredient in this product inhibits production of an enzyme in plants and microorganisms that is essential to formation of specific amino acids.

**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 rootstocks of perennials will not be affected by the herbicide and will continue to grow.

**Biological Degradation:** Degradation of this product is primarily a biological process carried out by soil microbes.

I. MAIN LABEL FOR FOOD CROP USES

**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.

When this label recommends a tank mixture with a generic active ingredient such as diuron, atrazine, 2,4-D, or dicamba, the user is responsible for ensuring that the mixture product's label allows the specific application.

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:** Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 6 quarts of this product per acre per year. For applications in non-crop sites or in tree, vine, or shrub crops, the combined total of all treatments must not exceed 8 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

**NOTE:** Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

**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.

**6.1 Mixing with Water**

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product near the end of the filling process and mix well. 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 bypass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

**6.2 Tank Mixing Procedure**

Mix labeled tank mixtures of this product with water as follows:

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. If ammonium sulfate is used add it slowly through the screen into the tank. Continue agitation. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding other products.
4. If a wettable powder is used, make a slurry with the water carrier, and add it 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.
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 the required amount of this product near the end of the filling process.
8. Add nonionic surfactant to the spray tank before completing the filling process.
9. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift reduction additive, water soluble liquid and nonionic surfactant.

I. MAIN LABEL FOR FOOD CROP USES

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. Ensure that the specific tank mixture product is registered for application at the desired site.

Refer to the "TANK MIXING" section of "GENERAL INFORMATION" for additional precautions.

6.3 Mixing for Hand-Held Sprayers

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Amount of [INSERT BRAND NAME]

Desired Volume	0.5%	0.75%	1%	1.5%	4%	8%
1 gal	2/3 oz	1 oz	1.3 oz	2 oz	5 oz	10 oz
25 gal	1 pt	1.5 pt	1 qt	1.5 qt	4 qt	2 gal
100 gal	2 qt	3 qt	1 gal	1.5 gal	4 gal	8 gal

2 tablespoons = 1 fluid ounce

For use in knapsack 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.

6.4 Surfactant

This product requires the use of a nonionic surfactant. Except when prohibited by this label, mix two or more quarts of a nonionic surfactant per 100 gallons of spray solution. Examples of when to use the higher surfactant rate include, but are not limited to: high water volumes, adverse environmental conditions, tough to control weeds, weeds under stress, surfactants with less than 70 percent active ingredient, tank mixes, etc.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet. Do not reduce rates of this product when adding surfactant. **DO NOT** add buffering agents or pH adjusting agents to the spray solution when [INSERT BRAND NAME] is the only pesticide used.

When applying this product in crop in Roundup Ready crops or preharvest to Roundup Ready cotton, limit nonionic surfactant use to two quarts per 100 gallons of spray solution. Use rates of nonionic surfactant exceeding two quarts per 100 gallons of spray solution may result in crop injury and reduced yield and is not recommended.

6.5 Ammonium Sulfate

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, particularly under hard water conditions, drought conditions or when tank mixed with certain residual herbicides, on annual and perennial weeds. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

**NOTE:** When using ammonium sulfate, apply this product at rates recommended in this label. Lower rates will result in reduced performance.

6.6 Colorants or Dyes

I. MAIN LABEL FOR FOOD CROP USES

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.

**6.7 Drift Reduction Additives**

Drift reduction additives may be used with all equipment types, except wiper applicators, sponge bars and Controlled Droplet Applicator (CDA) equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label. The use of drift reduction additives can affect spray coverage which may result in reduced performance.

**7.0 APPLICATION EQUIPMENT AND TECHNIQUES**

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

This product may be applied with the following application equipment:

**Aerial--Fixed Wing and Helicopter**

**Ground Broadcast Spray--**Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

**Hand-Held or High-Volume Spray Equipment--**Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers\*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

\*This product is not registered in California or Arizona for use in mistblowers.

**Selective Equipment--**Recirculating sprayers, shielded and hooded sprayers, wiper applicators and sponge bars.

**Injection Systems--**Aerial or ground injection sprayers.

**Controlled Droplet Applicator (CDA)--**Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

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

**SPRAY DRIFT MANAGEMENT**

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

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 the crop, plants or other areas on which treatment was not intended.

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 and the grower are responsible for considering all these factors when making decisions.

**7.1 Aerial Equipment**

**DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.**

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 1.5 pints per acre. Refer to the individual use area sections of this label for recommended volumes, application rates, and further instructions.

**FOR AERIAL APPLICATION IN CALIFORNIA, OR SPECIFIC COUNTIES THEREIN, OR IN ARKANSAS, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE OR COUNTY FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.**

This product plus dicamba tank mixtures may not be applied by air in California.

160 of 169

## I. MAIN LABEL FOR FOOD CROP USES

Ensure uniform application - To avoid streaked, uneven or overlapped application, use appropriate marking devices.

### AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

#### Importance of 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 the “Wind”, “Temperature and Humidity”, and “Temperature Inversions” sections of this label).

#### Controlling Droplet Size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use 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 backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the 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 larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 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 the exposure of the 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 droplets, etc.).

#### Wind

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

#### Temperature and Humidity

**I. MAIN LABEL FOR FOOD CROP USES**

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

**Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas**

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

Avoid direct application to any body of water.

**Aircraft Maintenance**

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

**7.2 Ground Broadcast Equipment**

Use the recommended rates of this product in 3 to 40 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 spray nozzles. Check for even distribution of spray droplets.

**7.3 Hand-Held or High-Volume 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 recommended rates and timing, refer to the "ANNUAL WEEDS -- HAND-HELD OR HIGH-VOLUME EQUIPMENT" section of this product label.

**7.4 Selective Equipment**

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any non-crop site specified on this label.

In cropping systems, hooded sprayers, shielded sprayers, and wipers may be used in row middles (in between rows of crop plants) where any dripping or leaking will not contact crop foliage. Such equipment must be capable of preventing all crop contact with herbicide solutions and operated without leakage of spray mists or dripping onto the crop. Wipers over-the-top of crops may be used only when specifically recommended in this product's labeling.

**AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Application equipment used above desirable vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

I. MAIN LABEL FOR FOOD CROP USES

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

**Recirculating Spray System**

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

**Shielded and Hooded Applicators**

When applied under the conditions described in the following paragraphs for shielded and hooded applications, this product at recommended rates will control those weeds listed in the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" sections of this label. A hooded sprayer is a type of shielded applicator where the spray pattern is fully enclosed including top, sides, front and back, thereby shielding the crop from the spray solution. Keep shields on these sprayers adjusted to protect desirable vegetation. When applying to crops grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

Use hoods designed to minimize excessive dripping or run-off down the insides of the hoods. A single, low pressure/low drift flat-fan nozzle with an 80 to 95 degree spray angle positioned at the top center of the hood is recommended. Spray volume should be 20-30 gallons per acre.

These procedures will reduce the potential for crop injury:

- The spray hoods must be operated on the ground or skimming across the ground.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 miles per hour to avoid bouncing of the spray hoods.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles that provide uniform coverage within the treated area.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

**Wiper Applicators**

When applied under the conditions described in the following paragraphs, this product **CONTROLS** many weeds, including volunteer corn, Texas panicum, common rye, shattercane, sicklepod, spanishneedles and bristly starbur; and **SUPPRESSES** many weeds including Florida beggarweed, bermudagrass, hemp dogbane, dogfennel, guineagrass, johnsongrass, milkweed, silverleaf nightshade, redroot pigweed, giant ragweed, smutgrass, sunflower, Canada thistle, musk thistle, vaseygrass, velvetleaf.

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if two applications are made in opposite directions.

19 of 169

I. MAIN LABEL FOR FOOD CROP USES

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended with all wiper applications.

**For Rope or Sponge Wick Applicators--** Solutions ranging from 33 to 75 percent of this product in water may be used. Apply this solution to weeds listed above in this section.

**For Panel Applicators--**Solutions ranging from 33 to 100 percent of this product in water may be used in panel wiper applicators.

**7.5 Injection Systems**

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the concentrate of other products when using injection systems.

**7.6 CDA Equipment**

The rate of this product applied per acre by vehicle-mounted 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 2 to 15 gallons of water per acre.

For the control of annual weeds with hand-held CDA units, apply a 20-percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1.5 pints per acre). For the control of perennial weeds, apply a 20- to 40-percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 miles per hour (3 to 6 pints per acre).

Controlled droplet application equipment produces a spray pattern that is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other tissue of desirable vegetation, as damage or destruction may result.

**8.0 ANNUAL AND PERENNIAL CROPS (Alphabetical)**

**NOTE: THIS SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED CROPS WITHIN SECTION 8 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.**

See the "ROUNDUP READY CROPS" section of this label or separately published Monsanto Supplemental Labeling for instructions for treating Roundup Ready crops.

**TYPES OF APPLICATIONS:**

Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest Treatments.

**GENERAL USE INSTRUCTIONS:**

Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergent to annual and perennial crops listed in this label, except where specifically limited. For any crop not listed in this label, applications must be made at least 30 days prior to planting. Unless otherwise specified, weed control applications may be made according to the rates listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS", and WOODY BRUSH AND TREES RATE TABLES" in this label. Repeat applications may be made up to a maximum of 6 quarts per acre per year.

I. MAIN LABEL FOR FOOD CROP USES

Post-directed hooded sprayers and wiper equipment capable of preventing all crop contact with herbicide solutions may be used in mulched or unmulched row middles after crop establishment. Where specifically noted below, wipers may also be used above certain crops to control tall weeds. Refer to the "SELECTIVE EQUIPMENT" section of this label for essential precautions when using hooded sprayers or wipers to avoid crop injury caused by leakage of spray mists or dripping onto crops. Crop injury is possible with these applications and shall be the sole responsibility of the applicator.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

GENERAL PRECAUTIONS, RESTRICTIONS:

Avoid contact of herbicide with foliage, shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

In crops where spot treatments are allowed, do not treat more than 10 percent of the total field to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.

For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

**8.1 Cereal and Grain Crops**

LABELED CROPS: Barley, Buckwheat, Millet (pearl, proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types), Wild rice.

PRECAUTIONS, RESTRICTIONS: Do not treat rice fields or levees when field contains water.

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Red Rice Control Prior to Planting Rice, Spot Treatment (except Rice), Over-the-Top Wiper Applications (Feed Barley and Wheat Only), Preharvest (Feed Barley and Wheat Only).

**Preplant, Preemergence, At-Planting**

USE INSTRUCTIONS: This product may be applied before, during or after planting of cereal crops. Applications must be made prior to emergence of the crop.

**Red Rice Control Prior to Planting Rice**

USE INSTRUCTIONS: Apply 3 pints of this product in 5 to 10 gallons of water per acre. Flush fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are in the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may be only partially controlled.

PRECAUTIONS, RESTRICTIONS: Avoid spraying during low humidity conditions, as reduced control may result. Do not treat rice fields or levees when the fields contain floodwater. Do not re-flood treated fields for 8 days following application.

**Spot Treatment (except Rice)**

USE INSTRUCTIONS: This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.

21 of 1169

I. MAIN LABEL FOR FOOD CROP USES

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

**Over-the-Top Wiper Applications (Feed Barley and Wheat Only)**

USE INSTRUCTIONS: Wiper applications may be used in wheat and feed barley. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth, and when the rye is at least 6 inches above the wheat crop.

PRECAUTIONS, RESTRICTIONS: Allow at least 35 days between application and harvest. Do not use roller applicators.

**Preharvest (Feed Barley and Wheat Only)**

USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of wheat or feed barley. For wheat, apply after the hard-dough stage of grain (30 percent or less grain moisture). For feed barley, apply after the hard-dough stage and when the grain contains 20 percent moisture or less.. Stubble may be grazed immediately after harvest.

This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 1.5 pints of this product per acre. Allow 7 days between application and harvest or grazing. Preharvest application is not recommended for wheat or barley grown for seed, as a reduction in germination or vigor may occur.

**Post-Harvest**

USE INSTRUCTIONS: This product may be applied after harvest of cereal crops. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

PRECAUTIONS, RESTRICTIONS: For any crop not listed on this label, applications must be made at least 30 days prior to planting the next crop. Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

**8.2 Corn**

TYPES OF CORN: Field corn, Seed corn, Silage corn, Sweet corn and Popcorn.

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Spot Treatment, Preharvest.

For Roundup Ready corn, see the "ROUNDUP READY CROPS" section of this label.

**Preplant, Preemergence, At-Planting**

USE INSTRUCTIONS: This product may be applied alone or in a tank-mixture before, during or after planting corn. Applications must be made prior to emergence of the crop.

TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for application prior to planting corn. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

2,4-D	Degree Xtra®	Harness Xtra 5.6L
Aim	Distinct™	Lariat®
atrazine	Dual Magnum™	Intro®/alachlor
Axiom™	Dual II Magnum™	Linex™/Lorox™
Balance™ PRO	Epic™	Marksman™
Banvel™/Clarity™	Frontier™/Outlook™	Micro-Tech®

I. MAIN LABEL FOR FOOD CROP USES

Bicep Magnum™	FulTime™	Prowl™
Bicep II Magnum™	Guardman™/Leadoff™	Python™
Bullet®	Harness®	simazine
Degree®	Harness Xtra	Topnotch™

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 24 fluid ounces per acre in these tank mixtures. For other labeled annual weeds, apply 12 to 18 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 fluid ounces when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.

**PRECAUTIONS, RESTRICTIONS:** Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn.

For Southern states, do not apply in nitrogen solutions to tough-to-control grasses such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds. The area covered by this recommendation includes from Route 50 South in Illinois and Indiana and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

**Hooded Sprayers**

**USE INSTRUCTIONS:** This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instruction for the use of hooded sprayers in the “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label.

**PRECAUTIONS, RESTRICTIONS:** Corn must be at least 12 inches tall, measured without extending leaves. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not apply more than 1.5 pints of this product per acre for each application and no more than 4.5 pints per acre per year for hooded sprayer applications.

**Spot Treatment**

**USE INSTRUCTIONS:** For spot treatments, apply this product prior to silking of corn.

**PRECAUTIONS, RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

**Preharvest**

**USE INSTRUCTIONS:** Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed). For ground applications, apply up to 4.5 pints of this product per acre. For aerial applications, apply up to 3 pints of this product per acre.

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between application and harvest. Preharvest application is not recommended for corn grown for seed, as a reduction in germination or vigor may occur.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied after harvest of corn. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

**8.3 Cotton**

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Selective Equipment, Spot Treatment, Preharvest.

I. MAIN LABEL FOR FOOD CROP USES

For Roundup Ready cotton, see the "ROUNDUP READY CROPS" section of this label.

**Preplant, Preemergence, At-Planting**

USE INSTRUCTIONS: This product may be applied before, during or after planting cotton. Applications must be made prior to emergence of the crop.

TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for application prior to planting cotton. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Caparol®	Direx	Prowl
Clarity	Dual Magnum	Staple®
Command	Dual II Magnum	Zorial®
Cotoran®	Karmex	2,4-D
Cotton-Pro®	Meturon®	

PRECAUTIONS/RESTRICTIONS: Refer to individual product labels for rates, restrictions, precautionary statements and preplant intervals.

**Hooded Sprayer, Selective Equipment**

USE INSTRUCTIONS: This product may be applied through hooded sprayers, recirculating sprayers, shielded applicators or wiper applicators in cotton. Allow at least 7 days between application and harvest.

PRECAUTIONS, RESTRICTIONS: See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

**Spot Treatment**

USE INSTRUCTIONS: For spot treatments, apply this product prior to boll opening of cotton.

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

**Preharvest**

USE INSTRUCTIONS: This product provides weed control and cotton regrowth inhibition when applied prior to harvest of cotton. For weed control, apply at rates given in the "ANNUAL WEEDS, PERENNIAL WEEDS, and WOODY BRUSH WEED AND TREES RATE TABLES" sections of this label. For cotton regrowth inhibition, apply 12 to 48 fluid ounces of this product per acre.

Up to 48 fluid ounces of this product per year may be applied using either aerial or ground spray equipment. Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

TANK MIXTURES: This product may be tank mixed with DEF™ 6, Folex™, Ginstar, or Prep™ to provide additional enhancement of cotton leaf drop.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest of cotton. Preharvest application is not recommended for cotton grown for seed, as a reduction in germination or vigor may occur.

**8.4 Fallow Systems**

LABELED CROPS: This product may be applied during the fallow period prior to planting or emergence of any crop on this label.

TYPES OF APPLICATIONS: Chemical fallow, Preplant fallow beds, Aid-to-tillage.

I. MAIN LABEL FOR FOOD CROP USES

**Chemical Fallow**

USE INSTRUCTIONS: This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used. Applications up to 3 pints per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

PRECAUTIONS, RESTRICTIONS: For any crop not listed on this label, applications must be made at least 30 days prior to planting. Do not apply dicamba tank mixtures by air in California.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba is applied within 45 days of planting.

**Preplant Fallow Beds**

USE INSTRUCTIONS: This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made at least 30 days prior to planting. This product will control weeds listed in the "ANNUAL, PERENNIAL and WOODY BRUSH WEED AND TREES RATE TABLE" sections of this label.

TANK MIXTURES: In addition, 9 fluid ounces of this product plus 2 to 3 fluid ounces of Goal™ 2XL per acre will control the following weeds with the maximum height or length indicated: 3 inches -- common cheeseweed, chickweed, groundsel; 6 inches -- London rocket, shepherd's-purse.

12 fluid ounces of this product plus 2 to 3 fluid ounces of Goal 2XL per acre will control the following weeds with the maximum height or length indicated: 6 inches -- common cheeseweed, groundsel, marestail (*Conyza canadensis*), 12 inches -- chickweed, London rocket, shepherd's-purse.

**Aid-to-Tillage**

USE INSTRUCTIONS: This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 6 fluid ounces of this product in 3 to 10 gallons of water per acre. Make applications before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage.

PRECAUTIONS, RESTRICTIONS: Tank mixtures with residual herbicides may result in reduced performance.

**8.5 Grain Sorghum (Milo)**

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Spot treatment, Over-the-Top Wiper Applications, Preharvest.

**Preplant, Preemergence, At-planting**

USE INSTRUCTIONS: This product may be applied alone or in tank-mixture before, during or after planting grain sorghum. Applications must be made prior to emergence of the crop.

TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for application prior to planting grain sorghum. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

atrazine	Lariat
Bicep II Magnum	Intrro
Bullet	Micro-Tech
Dual II Magnum	

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 24 fluid

2502169

## I. MAIN LABEL FOR FOOD CROP USES

ounces per acre in these tank mixtures. For other labeled annual weeds, apply 12 to 18 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 fluid ounces when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased for acceptable weed control.

### Spot Treatment, Over-the-Top Wiper Applications

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in grain sorghum. Make spot treatments before heading of milo. This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

**PRECAUTIONS, RESTRICTIONS:** For spot treatment, do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

### Hooded Sprayers

**USE INSTRUCTIONS:** This product may be used through hooded sprayers for weed control between the rows of milo. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instruction for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

**PRECAUTIONS, RESTRICTIONS:** Milo must be at least 12 inches tall, measured without extending leaves. Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers. Do not apply more than 1.5 pints of this product per acre per application and no more than 4.5 pints per acre per year for hooded sprayer applications.

### Preharvest

**USE INSTRUCTIONS:** Make applications at 30 percent grain moisture or less.

**PRECAUTIONS, RESTRICTIONS:** Do not apply more than 3 pints of this product per acre. As with other herbicides that cause sudden plant death, avoid preharvest applications of this product to milo infected with charcoal rot as lodging can occur. Allow a minimum of 7 days between application and harvest of sorghum. Preharvest application is not recommended for sorghum grown for seed, as a reduction in germination or vigor may occur. The use of this product for preharvest grain sorghum (milo) is not registered in California

### Post-Harvest

**USE INSTRUCTIONS:** This product may be applied after harvest of grain sorghum. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 24 fluid ounces of this product per acre for control, or 20 fluid ounces of this product per acre for suppression.

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

## 8.6 Herbs and Spices

I. MAIN LABEL FOR FOOD CROP USES

LABELED CROPS: Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or chinese parsley), Coriander seed (cilantro), Costmary, Culantro (leaf), Culantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mioga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Over-the-Top Wiper Applications (Peppermint and Spearmint Only), Spot Treatment (Peppermint and Spearmint Only)

PRECAUTIONS, RESTRICTIONS: When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the wash water flushes off the plastic mulch and does not enter transplant holes.

**Over-the-Top Wiper Applications, Spot Treatments (Peppermint and Spearmint Only)**

USE INSTRUCTIONS: This product may be used as a spot treatment or wiper application in spearmint and peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack and knapsack sprayers, pump-up pressure sprayers, hand-guns, hand-wands or any other hand-held or motorized spray equipment used to direct the spray solution to a limited area. In wiper applications, the applicator should be adjusted so that the wiper contact point is at least 2 inches above the crop. Weeds should be a minimum of 6 inches taller than the crop.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest. Further applications may be made in the same area at 30-day intervals. In spot treatment applications, no more than 10 percent of the total field area to be harvested should be treated at one time. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for this reason. In wiper applications, contact of the herbicide solution with the crop may result in damage or destruction.

**8.7 Oil Seed Crops**

LABELED CROPS: Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower.

For Roundup Ready canola, see the "ROUNDUP READY CROPS" section of this label.

TYPES OF APPLICATIONS: Those listed in Section 8.0.

USE INSTRUCTIONS: This product may be applied before, during or after planting oil seed crops. Broadcast applications must be made prior to emergence of the listed oil seed crops. Wiper applicators or hooded sprayers may be used between the rows once the crop is established.

TANK MIXTURES: For sunflowers, a tank mixture with Prowl may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 3 pints of this product per acre on canola. Do not apply more than 1.5 pints of this product per acre for sunflowers as a single preplant or preemergent application per year. Do not feed or graze sunflower forage following application of this product.

**8.8 Soybeans**

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Spot Treatment, Preharvest, Selective Equipment.

For Roundup Ready soybeans, see the "ROUNDUP READY CROPS" section of this label.

**Preplant, Preemergence, At-planting**

**I. MAIN LABEL FOR FOOD CROP USES**

**USE INSTRUCTIONS:** This product may be applied alone or in a tank mixture before, during or after planting soybeans. Applications must be made prior to emergence of the crop.

**TANK MIXTURES:** Apply these tank mixtures in 10 to 20 gallons of water per acre.

Aim™	Dual II Magnum	Micro-Tech
	Firstrate™	Prowl
Assure II™	Flexstar™	Pursuit™
Authority™	Frontier™/Outlook™	Pursuit Plus
Boundary™	Fusion™	Reflex™
Canopy™	Gauntlet™	Scepter™
Canopy XL	Intrro	Sencor™/Lexone™
Command™	Linex™	Squadron™
Command Xtra™	Lorox/Linuron	Steel™
Domain™	Lorox Plus™	Valor™
Dual Magnum		

This product may be tank-mixed with 2,4-D or 2,4-DB, provided that the specific product is registered for application prior to planting soybeans. See the 2,4-D label for intervals between application and planting.

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 24 fluid ounces per acre in these tank mixtures. For other labeled annual weeds, apply 12 to 18 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 fluid ounces when weeds are over 6 inches tall.

**PRECAUTIONS, RESTRICTIONS:** Tank mixtures with some of the above listed herbicides may result in reduced weed control due to antagonism. Read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling, or Fact Sheets published separately for all herbicides used. Use according to the most restrictive directions for each product in the mixture.

**Spot Treatment**

**USE INSTRUCTIONS:** For spot treatments, apply this product prior to initial pod set in soybeans.

**PRECAUTIONS, RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

**Preharvest**

**USE INSTRUCTIONS:** This product provides weed control when applied prior to harvest of soybeans.

Apply at rates given in the “ANNUAL WEEDS, PERENNIAL WEEDS and WOODY BRUSH AND TREES RATE TABLES”. This product may be applied using either aerial or ground spray equipment. Apply after pods have set and lost all green color. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

**PRECAUTIONS, RESTRICTIONS:** Do not apply more than 4 quarts per acre of this product for preharvest applications. Do not apply more than 3 pints per acre of this product by air. Allow a minimum of 7 days between application and harvest of soybeans. Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. (If the application rate is 1.5 pints per acre or lower, the grazing restriction is reduced to 14 days after last preharvest application.) Preharvest application is not recommended for soybeans grown for seed, as a reduction in germination or vigor may occur.

**Selective Equipment**

## I. MAIN LABEL FOR FOOD CROP USES

**USE INSTRUCTIONS:** This product may be applied through recirculating sprayers, shielded applicators, hooded sprayers, wiper applicators or sponge bars in soybeans. Allow at least 7 days between application and harvest.

**PRECAUTIONS, RESTRICTIONS:** See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

### 8.9 Sugarcane

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus Spot Treatment, and Foliar Treatment for Plant Growth Regulation.

#### Preplant, Preemergence, At-Planting

**USE INSTRUCTIONS:** This product may be applied in or around sugarcane fields or in fields prior to the emergence of plant cane.

**PRECAUTIONS, RESTRICTIONS:** Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

#### Spot Treatment

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, make a 0.75-percent solution of this product in water and spray-to-wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves.

**PRECAUTIONS, RESTRICTIONS:** Avoid spray contact with healthy cane plants since severe damage or destruction may result. Do not feed or graze treated sugarcane foliage following application.

#### Fallow Treatments

**USE INSTRUCTIONS:** This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 6 to 7.5 pints of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage. Ground or aerial application equipment may be used. Applications up to 4.5 pints per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used.

#### Hooded Sprayers

**USE INSTRUCTIONS:** This product may be used through hooded sprayers for weed control between the rows of sugarcane. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional use instructions.

**PRECAUTIONS, RESTRICTIONS:** Do not allow treated weeds to come into contact with the crop. Droplets, mist, foam or splatter of the herbicide solution settling on the crop may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

#### Foliar Treatment for Plant Growth Regulation

*Statement for use on final printed labeling under an approved brand name that may contain only this sugarcane plant growth regulator use:*

For use only on sugarcane. Do not plant to subsequent crops other than the following for 30 days after application: Corn (All), Soybean, Sorghum (Milo), Cotton, Alfalfa, Beans (All), Forage Grasses, Potatoes (Irish, Sweet), Wheat.

For foliar application to hasten ripening and extend the period of high sucrose levels in sugarcane.

**USE INSTRUCTIONS:** When foliar-applied this product is plant growth regulator to hasten ripening and increase the level of sucrose in sugarcane. It is effective in both low and high-tonnage sugarcane. When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane. As a result of leaf desiccation, improved trash burn can be expected. Within 2

29 of 169

I. MAIN LABEL FOR FOOD CROP USES

to 3 weeks after application, this product may produce a slight yellowing to pronounced browning and drying of leaves, and a shortening of upper internodes; spindle death may occur. Most of the sucrose increase is concentrated in the top nodes of the treated cane stalk. In order to recover the maximum sugar where topping is practiced during harvest, top at the base of the fourth leaf. Prior to application, consult your state sugarcane authority or local Monsanto representative regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated.

See the following for recommended rates and time of application for the State in which applications are to be made. NOTE: Use the higher rate within the recommended range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

**FLORIDA** -- Apply 6 to 14 fluid ounces of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.

**HAWAII** -- Apply 10 to 24 fluid ounces of this product per acre 4 to 10 weeks before harvest.

**LOUISIANA** -- Apply 4 to 14 fluid ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

**PUERTO RICO** -- Apply 6 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

**TEXAS** -- Apply 6 to 14 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

**PRECAUTIONS, RESTRICTIONS:** Application of this product may initiate development of shooting eyes. This product may not increase the sucrose content of sugarcane under conditions of good natural ripening. Do not apply to sugarcane to be harvested for seed purposes. Do not feed or graze treated sugarcane forage following application.

**8.10 Vegetable Crops**

**NOTE:** THIS "VEGETABLE CROPS" SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED VEGETABLE CROPS WITHIN SECTION 8.10 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

**TYPES OF APPLICATIONS:** Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, Prior to Transplanting Vegetables, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-harvest, Directed Applications (Non-Bearing Ginseng Only), Over-the-Top Wiper Applications (Rutabagas Only).

**PRECAUTIONS, RESTRICTIONS:** When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

Avoid contact of herbicide with foliage, shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, hooded sprayer, shielded spray, and wiper applications to row middles should be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

**8.10.1 Brassica Vegetables**

3009/169

## I. MAIN LABEL FOR FOOD CROP USES

LABELED CROPS: Broccoli, Chinese broccoli (gai lon), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

### 8.10.2 Bulb Vegetables

LABELED CROPS: Garlic, Great-headed garlic, Leek, Onion (dry bulb and green), Welsh onion, Shallot.

### 8.10.3 Cucurbit Vegetables and Fruits

LABELED CROPS: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), Melons (all), *Momordica spp* (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

PRECAUTIONS, RESTRICTIONS: For Cantaloupe, Casaba melon, Crenshaw melon, Cucumber, Gherkin, Gourds, Honeydew melon, Honey ball melon, Mango melon, Melons (all), Muskmelon, Persian melon, Pumpkin, Squash (summer, winter), and Watermelon, allow at least 3 days between application and planting.

### 8.10.4 Leafy Vegetables

LABELED CROPS: Amaranth (Chinese spinach), Arugula (roquette), Beet greens, Cardoon, Celery, Chinese celery, Celuice, Chaya, Chervil, Edible-leaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

PRECAUTIONS, RESTRICTIONS: For Watercress, avoid applications within 3 days prior to seeding and during the period between seeding and emergence to minimize the risk of injury.

### 8.10.5 Fruiting Vegetables

LABELED CROPS: Eggplant, Groundcherry (*Physalis spp*), Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato

PRECAUTIONS, RESTRICTIONS: For Eggplant, Ground cherry, Pepper (all), and Tomatillo, allow at least 3 days between application and planting. For tomato, do not make hooded or shielded sprayer applications in row middles.

### 8.10.6 Legume Vegetables (Succulent or Dried)

LABELED CROPS: Bean (*Lupinus*: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus*: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna*: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum*: includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

### 8.10.7 Root and Tuber Vegetables

LABELED CROPS: Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava (turnip-rooted), Parsley (turnip rooted), Parsnip, Potato, Radish, Oriental radish, Rutabaga, Salsify, Black salsify, Spanish salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yam bean, True yam.

### Directed Applications (Non-Bearing Ginseng Only)

## I. MAIN LABEL FOR FOOD CROP USES

**USE INSTRUCTIONS:** This product may be used for general weed control in established non-bearing ginseng. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high volume wands, lances, and orchard guns or with wiper application equipment.

**PRECAUTIONS, RESTRICTIONS:** Direct applications so that there is no contact of this product with the ginseng plant. Applications must be made at least one year prior to harvest.

### **Over-the-Top Wiper Applications (Rutabagas Only)**

**USE INSTRUCTIONS:** Wiper applicators may be used over-the-top of rutabagas.

**PRECAUTIONS, RESTRICTIONS:** Allow at least 14 days between application and harvest of rutabagas.

### **8.11 Miscellaneous Crops**

**LABELED CROPS:** Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar beet.

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: General Weed Control, Site Preparation, Spot Treatment (Asparagus), Post-Harvest (Asparagus).

For Roundup Ready sugar beets, see the "ROUNDUP READY CROPS" section of this label.

**PRECAUTIONS, RESTRICTIONS:** Avoid contact of herbicide with foliage, shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, hooded sprayer, shielded spray, and wiper applications to row middles should be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

### **General Weed Control, Site Preparation**

**USE INSTRUCTIONS:** This product may be applied for general weed control or for site preparation prior to planting or transplanting crops listed in this section.

**PRECAUTIONS, RESTRICTIONS:** When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

Do not apply within a week before the first asparagus spears emerge. Do not feed or graze treated pineapple forage following application.

### **Spot Treatment (Asparagus)**

**USE INSTRUCTIONS:** This product may be applied immediately after cutting, but prior to the emergence of new spears.

**PRECAUTIONS, RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

### **Post-Harvest (Asparagus)**

**USE INSTRUCTIONS:** This product may be applied after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears.

**PRECAUTIONS, RESTRICTIONS:** Direct contact of the spray with the asparagus may result in serious crop injury. Select and use recommended types of spray equipment for postemergence post-harvest applications. A

I. MAIN LABEL FOR FOOD CROP USES

directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

**9.0 TREE, VINE, AND SHRUB CROPS (Alphabetical)**

**NOTE:** THIS SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED TREE, VINE, AND SHRUB CROPS WITHIN SECTION 9 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

**TYPES OF APPLICATIONS:** Preplant (site preparation) Broadcast Sprays, General Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees, vines or bushes), Selective Equipment (shielded sprayers, wiper applications), Directed Sprays, Spot Treatments, Perennial Grass Suppression, Cut Stump.

Applications may be made with boom equipment, CDA equipment, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed.

**GENERAL USE INSTRUCTIONS:**

This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for general weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries, and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. Apply 12 fluid ounces to 4 quarts per acre according to the "ANNUAL and PERENNIAL WEEDS RATE TABLES" sections of this label. Utilize rates at the higher end of the recommended rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

**GENERAL PRECAUTIONS, RESTRICTIONS:**

Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or bark of trunk, branches, suckers, fruit or other parts of trees, canes and vines. Avoid applications when recent pruning wounds or other mechanical injury has occurred. Contact of this product with other than matured brown bark can result in serious crop damage or destruction. Only shielded or directed sprayers may be used in crops with potential for crop contact, and then only where there is sufficient clearance. For applications in strips (within rows of trees), only selective equipment (directed sprays, hooded sprayers, shielded applicators, or wipers) should be used to minimize the potential for leakage or drift of herbicide sprays onto crop. For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back. Only wipers or shielded applicators capable of preventing all contact with crop may be used. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional directions and precautions.

Allow a minimum of 3 days between application and transplanting.

**Middles (between rows)**

**USE INSTRUCTIONS:** This product will control or suppress annual and perennial weeds and ground covers growing between the rows of labeled tree and vine crops. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application.

**TANK MIXTURES:** A tank mixture of this product plus Goal 2XL may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. This mixture is recommended when weeds are stressed or growing in dense populations. 12 to 24 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control annual weeds with a maximum height or diameter of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's-purse, annual sowthistle, filaree (suppression), horseweed/marestail, stinging nettle and common purslane (suppression). 9 to 24 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre

## I. MAIN LABEL FOR FOOD CROP USES

of Goal 2XL will control common cheeseweed (malva) or hairy fleabane with a maximum height or diameter of 3 inches.

### Strips (in rows)

TANK MIXTURES: This product may be applied in rows of tree or vine crops in tank mixtures with the following products:

Devrino™ 50 DF	Simazine 4L
Direx™ 4L	Simazine 80W
Goal 2XL	Sim-Trol™ 4L
Karmex DF	Solicam™ DF
Krovar I	Surflan™ AS
Prowl	Surflan 75W
Princep Caliber™90	

Do not apply these tank mixtures in Puerto Rico.

Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

### Perennial Grass Suppression

This product will suppress perennial grasses such as bahiagrass, Bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 6 fluid ounces of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 4.5 fluid ounces of this product per acre. Do not add ammonium sulfate.

For best results, mow cool season grass covers in the spring to even their height and apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4.5 fluid ounces of this product in 10 to 25 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 1.5 to 3 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of Bermudagrass, apply 1.5 to 3 pints of this product in 3 to 20 gallons of water per acre. Use this treatment only if reduction of the Bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of Bermudagrass, apply 4.5 to 12 fluid ounces of this product per acre east of the Rocky Mountains and 12 fluid ounces of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the Bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when regrowth occurs and Bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 4.5 to 7.5 fluid ounces of this product per acre should be used in shaded conditions or where a lesser degree of suppression is desired.

### Cut Stump

USE INSTRUCTIONS: Cut stump applications of this product may be made during site preparation or site renovation, prior to transplanting tree crops. This product will control regrowth of cut stumps and resprouts of many types of tree species, some of which are listed below.

I. MAIN LABEL FOR FOOD CROP USES

Citrus Trees: Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo, Tangor.

Fruit Trees: Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince.

Nut Trees: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English).

Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50- to 100-percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

**PRECAUTIONS, RESTRICTIONS: DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.** Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

**9.1 Berry Crops**

**LABELED CROPS:** Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black, red), Salal.

**TYPES OF APPLICATIONS:** Those listed in Section 9.0 plus Spot Treatment in Cranberry Production and Post-Harvest Treatments in Cranberry Production.

**PRECAUTIONS, RESTRICTIONS:** To avoid damage, herbicide sprays must not be allowed to contact desirable vegetation, including shoots, canes, or foliage. Allow a minimum of 30 days between last application and harvest in cranberries. Allow a minimum of 14 days between last application and harvest in other berry crops. Do not make directed sprays within the cranberry bush areas prior to berry harvest.

**Spot Treatment in Cranberry Production**

**USE INSTRUCTIONS:** Spot treatments may be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. Drop water level to remove standing water in ditches prior to application. In hand-held sprayers, use 0.75- to 1.5-percent solution of this product. Spray to wet vegetation, not to run-off.

**PRECAUTIONS, RESTRICTIONS:** For treatments after draw down of water in dry ditches, allow 2 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after draw down to ensure application to actively growing weeds. Allow a minimum of 30 days between last application and harvest of cranberries. Do not apply this material through the irrigation system. Do not make applications by air. Do not apply directly to water. Use nozzles that emit medium- to large-sized droplets to minimize drift in order to avoid crop injury.

**Post-Harvest Treatments in Cranberry Production**

**USE INSTRUCTIONS:** Application of this product may be made after the harvest of cranberries to control weeds growing within the field. Best results will be obtained if applications are made to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers, or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. If using hand-held sprayers, use a 0.5- to 0.75-percent solution of this product. Spray to wet vegetation, not to run-off. If using hand-held boom sprayers, apply 1.5 to 3.75 quarts of this product per acre.

3509/109

I. MAIN LABEL FOR FOOD CROP USES

PRECAUTIONS, RESTRICTIONS: Make applications only after cranberries have been harvested. Do not treat more than 10 percent of the total bog. Allow a minimum of 6 months after last application and next harvest of cranberries. Do not apply this product through the irrigation system. Do not make applications by air. Do not apply directly to water. Even though vines appear dormant, contact of the herbicide solution with desirable vegetation may result in damage or severe plant injury. Cranberry plants that are directly sprayed may be killed.

9.2 Citrus

LABELED CROPS: Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (all), Pummelo, Satsuma Mandarin, Tangelo (ugli), Tangor.

TYPES OF APPLICATIONS: Those listed in Section 9.0.

USE INSTRUCTIONS: (The recommendations below pertain to Florida and Texas.)

For burndown or control of the weeds listed below, apply the recommended rates of this product in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

For goatweed, apply 3 to 4.5 pints of this product per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 3 pints per acre when plants are less than 8 inches tall and 4.5 pints per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the addition of Krovar™ I or Karmex™ may improve control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Perennial weeds:

- S = Suppression
- B = Burndown
- PC = Partial control
- C = Control

[INSERT BRAND NAME] RATE PER ACRE

WEED SPECIES	1.5 PT	3 PT	4.5 PT	7.5 PT
Bermudagrass	B	--	PC	C
Guineagrass				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	--	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	--	PC	C

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in citrus crops. For citron groves, apply as directed sprays only.

9.3 Miscellaneous Tree Food Crops

LABELED CROPS: Cactus (fruit and pads), Palm (heart, leaves), Palm (oil).

TYPES OF APPLICATIONS: Those listed in Section 9.0.

9.4 Non-Food Tree Crops

LABELED CROPS: Pine, Poplar, Eucalyptus, Christmas Trees, Other non-food tree crops.

TYPES OF APPLICATIONS: Those listed in Section 9.0.

Directed Sprays, Spot Treatment, Wiper Applications

USE INSTRUCTIONS: This product may be used as a post-directed spray and spot treatment around established poplar, eucalyptus, Christmas trees and other non-food tree crops.

PRECAUTIONS, RESTRICTIONS: Care must be exercised to avoid contact of spray, drift or mist with foliage or bark of established Christmas trees and other pine trees. Desirable plants may be protected from the spray

I. MAIN LABEL FOR FOOD CROP USES

solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES AND OTHER PINE TREES.

**Site Preparation**

USE INSTRUCTIONS: This product may be used prior to planting.

PRECAUTIONS, RESTRICTIONS: Precautions should be taken to protect non-target plants during site preparation applications.

**9.5 Pome Fruit**

LABELED CROPS: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

TYPES OF APPLICATIONS: Those listed in Section 9.0

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in pome crops.

**9.6 Stone Fruit**

LABELED CROPS: Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all types), Plumcot.

TYPES OF APPLICATIONS: Those listed in Section 9.0

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 17 days between last application and harvest in stone fruit crops. For olive groves, apply as directed sprays only.

**Restrictions on Application Equipment**

For cherries, any application equipment listed in Section 9.0 may be used in all states.

Any application equipment listed in Section 9.0 may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states, use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

**9.7 Tree Nuts**

LABELED CROPS: Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English).

TYPES OF APPLICATIONS: Those listed in Section 9.0.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 3 days between last application and harvest of tree nuts, except coconut. Allow 14 days between application and harvest in coconut.

**9.8 Tropical and Subtropical Trees and Fruits**

LABELED CROPS: Ambarella, Atemoya, Avocado, Banana, Barbados cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilima, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambu.

TYPES OF APPLICATIONS: Those listed in Section 9.0 plus Bananacide (Banana only).

## I. MAIN LABEL FOR FOOD CROP USES

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 1 day between last application and harvest in banana, guava, papaya, and plantain crops. Allow a minimum of 14 days between last application and harvest for any other tropical or subtropical tree fruit. Allow a minimum of 28 days between last application and harvest in coffee crops. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

### **Bananacide (Banana Only)**

**USE INSTRUCTIONS:** This product may be used to destroy banana plants infected with the Banana Bunchy Top Virus as well as non-infected banana plants to establish disease free buffers around plantations. Remove all fruit from the plants within the treatment area prior to treatment. Inject 0.04 fluid ounce (1 mL) of this product's concentrate per 2 to 3 inches of pseudostem diameter. Make the injection at least one foot above the ground, except for very small plants, which should be injected vertically into the top. Any subsequent regrowth must also be destroyed. All plants and mats (or units) adjacent (within a 4-foot radius) to a treated mat shall be mechanically destroyed.

For control of the Banana Bunchy Top Virus, it is critical that the grower follow a strict control program involving monitoring for diseased plants, spraying to control the aphid vector, and destruction of all infected mats (or units). An infected plant may not show symptoms of the banana bunchy top virus for up to 125 days, therefore it is critical that the entire mat (or unit) containing the diseased plant be destroyed immediately.

**PRECAUTIONS, RESTRICTIONS:** Do not apply more than 0.5 fluid ounce (15 mL) of this product's concentrate per mat (or unit). Remove all fruit from plants and mats (or units) prior to treatment. Do not harvest any fruit or plant materials from treated mats (or units) following injection. Do not allow livestock to consume treated plant materials. Following transplant of new banana plants into treated areas, allow plants to become established for 3 months before applying this product for general weed control.

### **9.9 Vine Crops**

**LABELED CROPS:** Grapes (raisin, table, wine, juice) Hops, Kiwi, Passion fruit.

**TYPES OF APPLICATIONS:** Those listed in Section 9.0.

Applications should not be made when green shoots, canes or foliage are in the spray zone.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 14 days between last application and harvest in vine crops. Do not use selective equipment in kiwi.

## **10.0 PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS**

### **10.1 Alfalfa, Clover, and Other Forage Legumes**

**LABELED CROPS:** Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types).

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Preharvest (Except Kenaf and Leucaena), Spot Treatment, Over-the-Top Wiper Applications, Renovation.

#### **Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting crops listed in this section. Applications must be made prior to emergence of the crop.

**PRECAUTIONS, RESTRICTIONS:** Remove domestic livestock before application. The crop may be fed or grazed as soon as it reaches sufficient maturity.

#### **Preharvest (Except Kenaf and Leucaena)**

**USE INSTRUCTIONS:** This product may be used in declining stands or any stand where severe crop injury or destruction is acceptable. This product will control annual and perennial weeds, including quackgrass, when applied prior to crop harvest. Applications may be made at any time of the year. For control of quackgrass,

I. MAIN LABEL FOR FOOD CROP USES

apply in the spring, late summer or fall when quackgrass is actively growing. Treatments for quackgrass must be followed by deep tillage for complete control.

PRECAUTIONS, RESTRICTIONS:

Make only one application to an existing crop stand per year. The treated crop and weeds can be harvested and fed to livestock according to the intervals below.

	Maximum Single Application Rate (per acre)	Minimum Interval between application and harvest / grazing
Alfalfa	3 pints	36 hours
All other labeled legumes above	2.25 pints	3 days

This application may destroy an alfalfa stand and may severely injure or destroy other labeled crops such as clover. Preharvest application is not recommended for alfalfa grown for seed, as a reduction in germination or vigor may occur.

Spot Treatment, Over-the-Top Wiper Applications

USE INSTRUCTIONS: This product may be applied as a spot treatment or with wiper applicators. For wipers, see the "Wiper Applicators" in the "SELECTIVE EQUIPMENT" section of this label. Applications may be made in the same area at 30-day intervals.

PRECAUTIONS, RESTRICTIONS: For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled. No more than 10 percent of the total field area should be treated at one time. Remove domestic livestock before application and wait 3 days after application before grazing livestock or harvesting.

Renovation

USE INSTRUCTIONS: This product may be applied as a broadcast spray to renovate existing stands of alfalfa, clover, and other labeled forage legumes. If the crop is to be grazed or harvested for feed, use up to 3 pints per acre in alfalfa and up to 2.25 pints per acre in other labeled legumes. For complete removal of established stands of clover, it may be necessary to use the higher treatment rates listed in the "PERENNIAL WEEDS RATE TABLE" section.

PRECAUTIONS, RESTRICTIONS: When treatment rates of 3 pints per acre for alfalfa or 2.25 pints per acre for other forage legumes are used, remove domestic livestock before application and wait 3 days after application before reintroduction. If treatment rates above these levels are necessary, do not graze or harvest treated foliage for livestock feed. Crops listed for treatment in this label may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

10.2 Conservation Reserve Program (CRP)

TYPES OF APPLICATIONS: Renovation (Rotating out of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Applications.

Renovation (Rotating out of CRP), Site Preparation

USE INSTRUCTIONS: This product may be used to prepare CRP land for crop production. Refer to Federal, state or local use guides for CRP renovation recommendations. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting.

Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Applications

USE INSTRUCTIONS: This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 9 to 12 fluid ounces of this product per acre in early spring before desirable CRP grasses, such as crested

I. MAIN LABEL FOR FOOD CROP USES

and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS, RESTRICTIONS: Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 4.5 pints per acre per year onto CRP grasses.

10.3 Grass Seed or Sod Production

LABELED CROPS: Any grass (*Gramineae* family) except Corn, Sorghum, Sugarcane and those listed in this label under "CEREAL AND GRAIN CROPS".

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Renovation, Site Preparation, Shielded Sprayers, Over-the-Top Wiper Applications, Spot Treatment, Creating Rows in Annual Ryegrass.

Preplant, Preemergence, At-Planting, Renovation, Site Preparation

USE INSTRUCTIONS: This product controls most existing vegetation prior to renovating turf or forage grass seed areas or establishing turf grass grown for sod. Make applications before, during, or after planting or for renovation. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. 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. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as Bermudagrass, summer or fall applications provide best control. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS, RESTRICTIONS: 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 proper translocation into underground plant parts. If application rates total 72 fluid ounces per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 4.5 pints per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting. Applications must be made prior to the emergence of the crop to avoid crop injury.

Shielded Sprayers

USE INSTRUCTIONS: Apply 1.5 to 4.5 pints of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields. For additional instructions, see "Hooded and Shielded Applicators" in the "SELECTIVE EQUIPMENT" section.

PRECAUTIONS, RESTRICTIONS: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

Over-the-Top Wiper Applications

USE INSTRUCTIONS: Applicators should be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. For additional instructions, see "Wiper Applicators" in the "SELECTIVE EQUIPMENT" section.

PRECAUTIONS, RESTRICTIONS: Contact of the herbicide solution with desirable vegetation may result in damage or destruction.

Spot Treatment

USE INSTRUCTIONS: Use a 1.0-percent solution.

PRECAUTIONS, RESTRICTIONS: Apply this product prior to heading of grasses grown for seed. The crop receiving the spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for

## I. MAIN LABEL FOR FOOD CROP USES

the same reason. Hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

### Creating Rows in Annual Ryegrass

**USE INSTRUCTIONS:** Use 12 to 24 fluid ounces of this product per acre. Use the higher rate when the ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height.

**PRECAUTIONS, RESTRICTIONS:** Set nozzle heights to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass plants not treated. Use of low-pressure nozzles, or drop nozzles designed to target the application over a narrow band are recommended.

**Grower assumes all responsibility for crop losses from misapplication.**

### 10.4 Pastures

**LABELED CROPS:** Any grass (*Gramineae* family) except Corn, Sorghum, Sugarcane and those listed in this label under "CEREAL AND GRAIN CROPS". Including Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

**TYPES OF APPLICATIONS:** Preplant, Preemergence, Pasture Renovation, Spot Treatment, Over-the-Top Wiper Applications, Postemergent Weed Control (Broadcast Treatments).

#### Preplant, Preemergence, Pasture Renovation

**USE INSTRUCTIONS:** This product may be applied prior to planting or emergence of forage grasses. In addition, this product may be used to control perennial pasture species listed on this label prior to re-planting.

**PRECAUTIONS, RESTRICTIONS:** If application rates total 4.5 pints per acre or less, no waiting period between treatment and feeding of livestock grazing is required. If the rate is greater than 4.5 pints per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed for treatment in this label may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

#### Spot Treatment, Over-the-Top Wiper Applications

**USE INSTRUCTIONS:** This product may be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals.

**PRECAUTIONS, RESTRICTIONS:** For spot treatments or wiper application methods using rates of 4.5 pints per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper application are made using rates above 4.5 pints per acre, no more than 10 percent of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

#### Postemergent Weed Control (Broadcast Treatments)

**USE INSTRUCTIONS:** This product may be used to suppress competitive growth and seed production of annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 9 to 12 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

**PRECAUTIONS, RESTRICTIONS:** Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Use of higher application rates will cause stand reductions. Do not apply more than 72 fluid ounces per acre per year onto pasture grasses except for renovation uses (see instructions above). If replanting is needed due to severe stand reduction, applications must be made at least 30 days prior to planting any crop not listed for treatment in this label.

### 10.5 Rangelands

**TYPES OF APPLICATIONS:** Postemergence.

## I. MAIN LABEL FOR FOOD CROP USES

This product will control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands.

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

**USE INSTRUCTIONS:** Apply 9 to 12 fluid ounces of this product per acre to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are possible, and recommended, where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 12 fluid ounces of this product per acre at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Controlled burning may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

**PRECAUTIONS, RESTRICTIONS:** Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off. Do not use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding of livestock or grazing is required. Do not apply more than 4.5 pints per acre per year.

### 11.0 ROUNDUP READY CROPS

The following instructions or those separately published on Monsanto Supplemental labeling include all applications which can be made onto the specified Roundup Ready crops during the complete cropping season. Do NOT combine these instructions with other recommendations made for crop varieties that do not contain the Roundup Ready gene, in the "ANNUAL AND PERENNIAL CROPS (ALPHABETICAL)" section of this label.

#### MONSANTO COMPANY RECOMMENDS USE OF THIS PRODUCT FOR POSTEMERGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY GENE.

Applying this product to crop varieties that are not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, stems, or fruit of crops, or any desirable plants that do not contain the Roundup Ready gene, since severe injury or destruction will result.

The Roundup Ready designation indicates that the crop variety contains a patented gene that provides tolerance to this product. Information on Roundup Ready crop varieties may be obtained from your seed supplier or Monsanto representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

**NOTE:** Roundup Ready seed, and the method of selectively controlling weeds in a Roundup Ready crop by applying glyphosate to the weeds and Roundup Ready crop are protected under several U.S. Patents, including 5,352,605 and 5,633,435. A license to use Roundup Ready seed must be obtained prior to use. Monsanto retains ownership of the gene and process technologies, and the Purchaser of the seed receives the right to use the licensed genes and technologies subject to the limited use license conditions. Seed containing the Roundup Ready trait cannot be used for research and demonstration, reverse engineering or in connection with herbicide registration. Progeny seed containing the Roundup Ready trait cannot be saved for replanting or transferred to others for replanting. Contact your Authorized Monsanto Retailer for information on obtaining a limited use license.

For ground applications with broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment use flat spray nozzles. Check for even distribution of spray droplets.

I. MAIN LABEL FOR FOOD CROP USES

For aerial applications apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

For proper stewardship of aerial applications over-the-top of Roundup Ready crops, Monsanto recommends that growers and applicators read and follow all precautions and procedures contained in the use guide "A Guide to On-Target Aerial Application" available by calling 1-800-ROUNDUP (1-800-768-6387).

**ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE ROUNDUP READY GENE.**

See the "MIXING and APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for additional directions and restrictions on the application of this product.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers may result in reduced weed control or crop injury and are NOT recommended for over-the-top applications of this product unless otherwise noted in this product label, supplemental labeling or Fact Sheets published separately by Monsanto.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready crops. Refer to the "MIXING" section for use instructions for ammonium sulfate.

Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product. Follow the cleaning procedures specified on the label of the product(s) previously used. **THOROUGHLY CLEAN THE SPRAY TANK AND ALL LINES AND FILTERS TO ELIMINATE POTENTIAL CONTAMINATION FROM OTHER HERBICIDES PRIOR TO MIXING AND APPLYING THIS PRODUCT.**

**NOTE:** The following recommendations are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of this product is recommended to control existing weeds prior to crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morningglory, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

**11.1 Canola with the Roundup Ready Gene**

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence.

**DO NOT USE THIS PRODUCT ON CANOLA WITH THE ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA, EXCEPT FOR USES IN WILDLIFE FOOD PLOTS THAT WILL NOT BE HARVESTED FOR HUMAN OR LIVESTOCK FOOD.**

<b><u>Maximum Allowable Combined Application Quantities Per Season</u></b>	
Preplant, At-planting, Preemergence applications	3 pints per acre
Total in-crop application from emergence to 6-leaf stage	1.5 pints per acre

**Preplant, Preemergence, At-Planting**

USE INSTRUCTIONS: This product may be applied before, during or after planting canola.

**Postemergence**

I. MAIN LABEL FOR FOOD CROP USES

USE INSTRUCTIONS: This product may be applied postemergence to Roundup Ready canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.

Weeds Controlled: For specific rates of application and instructions, refer to the "ANNUAL and PERENNIAL WEEDS RATE TABLES" in this label.

Single Application - Apply 12 to 18 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 12 fluid ounces per acre are applied after the 4-leaf stage.

Sequential Application - Apply 12 fluid ounces per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are recommended for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass or when controlling weeds with multiple application times.

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application should not exceed 1.5 pints per acre. Allow a minimum of 60 days between last application and canola harvest.

11.2 Corn with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence, Spot Treatment, Preharvest, Post-Harvest.

<u>Maximum Allowable Combined Application Quantities Per Season</u>	
Combined total per year for all applications	6 quarts per acre
Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Total in-crop applications from emergence through the V8 stage or 30 inches	3 pints per acre
Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest	1.5 pints per acre

**Preplant, Preemergence, At-Planting**

USE INSTRUCTIONS: This product may be applied alone or in a tank-mixture before, during or after planting corn.

TANK MIXTURES: This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso or Micro-Tech at 50 to 100 percent of labeled. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines - the more restrictive requirements apply.

NOTE: For maximum weed control, a postemergence (in-crop) application of this product should be applied following the use of less than labeled rates of the preemergence residual products listed above.

**Postemergence (in-crop)**

USE INSTRUCTIONS: This product may be applied postemergence to Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first.

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more

I. MAIN LABEL FOR FOOD CROP USES

application of this product. The postemergent application of 18 to 24 fluid ounces per acre of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inch tall weeds or less.

This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 18 to 24 fluid ounces per acre will control the labeled grasses and broadleaf weeds.

TANK MIXTURES: This product may be applied in tank mixture with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, and Micro-Tech at 50 to 100 percent of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines - the more restrictive requirements apply.

Tank-mix Partner	Maximum Height Of Corn For Application
Degree Degree Xtra Harness Harness Xtra Harness Xtra 5.6	11 inches
Bullet* Micro-Tech*	5 inches
atrazine	12 inches

\*Bullet and Micro-Tech are not registered for use as a postemergence application in Texas.

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. Single in-crop applications of this product are not to exceed 1.5 pints per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 3 pints per acre per growing season. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product and harvest of corn forage.

**Preharvest**

USE INSTRUCTIONS: In Roundup Ready corn, up to 1.5 pints per acre of this product can be applied preharvest. Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest.

**Post-Harvest**

USE INSTRUCTIONS: This product may be applied after harvest of corn. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

**11.3 Cotton with the Roundup Ready Gene**

I. MAIN LABEL FOR FOOD CROP USES

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence (Over-the-Top), Selective Equipment, Preharvest.

<b><u>Maximum Allowable Combined Application Quantities Per Season</u></b>	
Combined total per year for all applications	6 quarts per acre
Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Total in-crop applications from ground cracking to layby	3 quarts per acre
Maximum preharvest application rate	1.5 quarts per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. The combined total application of this product from cotton emergence until harvest must not exceed 4.5 quarts per acre. NO MORE THAN TWO OVER-THE-TOP BROADCAST APPLICATIONS MAY BE MADE FROM CROP EMERGENCE THROUGH THE 4-LEAF (NODE) STAGE OF DEVELOPMENT. NO MORE THAN TWO APPLICATIONS SHOULD BE MADE FROM THE 5-LEAF STAGE THROUGH LAYBY. SEQUENTIAL IN-CROP OVER-THE-TOP OR POST-DIRECTED APPLICATIONS OF THIS PRODUCT MUST BE AT LEAST 10 DAYS APART AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS. ALLOW A MINIMUM OF 7 DAYS BETWEEN APPLICATION AND HARVEST.

**Preplant, Preemergence, At-Planting**

USE INSTRUCTIONS: This product may be applied before, during or after planting cotton.

**Postemergence (Over-the-Top)**

USE INSTRUCTIONS: This product may be applied by aerial or ground application equipment at rates up to 1.5 pints per acre per application postemergence to Roundup Ready cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the 4-leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss.

**Salvage Treatment.** This treatment may be used after the 4-leaf stage of development and should only be used where weeds threaten to cause the loss of the crop. 1.5 pints per acre may be applied either as an over-the-top applications or as a post-directed treatments sprayed higher on the cotton plants and over the weeds. **NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT SHOULD BE USED PER GROWING SEASON.**

**NOTE:** For specific rates of application and instructions, refer to the "ANNUAL and PERENNIAL WEEDS RATE TABLES" in this label.

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops.

**Selective Equipment**

USE INSTRUCTIONS: This product may be applied using precision post-directed or hooded sprayers at rates up to 1.5 pints per acre per application to Roundup Ready cotton through layby. At this stage, post-directed equipment should be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves should be avoided to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 psi). For best results, make applications while weeds are small (less than 3 inches).

PRECAUTIONS, RESTRICTIONS: See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

I. MAIN LABEL FOR FOOD CROP USES

**Preharvest**

**USE INSTRUCTIONS:** This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20 percent boll crack. Up to 3 pints of this product may be applied using either aerial or ground spray equipment. **NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready cotton

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between application and harvest of cotton. Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur.

**ATTENTION:** Use of this product in accordance with label directions is expected to result in normal growth of roundup ready cotton, however, various environmental conditions, agronomic practices and other factors make it impossible to eliminate all risks associated with this product, even when applications are made in conformance with the label specifications. In some cases, these factors can result in boll loss, delayed maturity and/or yield loss.

**11.4 Soybeans with the Roundup Ready Gene**

**TYPES OF APPLICATIONS:** Preplant, At-planting, Preemergence, Postemergence, Preharvest, Post-harvest.

<u>Maximum Allowable Combined Application Quantities Per Season</u>	
Combined total per year for all applications	6 quarts per acre
Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Total in-crop applications from cracking throughout flowering	4.5 pints per acre
Maximum preharvest application rate	1.5 pints per acre

**PRECAUTIONS/RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops.

**Preplant, Preemergence, At-planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting soybeans.

**Postemergence**

**USE INSTRUCTIONS:** When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Applications of this product can be made in Roundup Ready soybeans from emergence (cracking) throughout flowering. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for rate recommendations for specific annual weeds. In general, an initial application of 1.5 pints per acre on 2 to 8 inch tall weeds is recommended. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 3 pints per acre in any single in-crop application for control of annual weeds and where heavy weed densities exist.

A 1.5- to 3-pint per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: Bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, maretail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. **IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP.** To control giant ragweed, it is recommended that 1.5 pints per acre of this product be applied when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

I. MAIN LABEL FOR FOOD CROP USES

PRECAUTIONS, RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 4.5 pints per acre. The maximum rate for any single in-crop application is 3 pints per acre. The maximum combined total of this product that can be applied during flowering is 3 pints per acre.

**Preharvest**

USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of soybeans. Up to 1.5 pints per acre of this product can be applied by aerial or ground application.

PRECAUTIONS, RESTRICTIONS: Care should be taken to avoid excessive seed shatter loss due to ground application equipment. Allow a minimum of 14 days between final application and harvest of soybean grain or feeding of soybean grain, forage or hay.

**Post-Harvest**

USE INSTRUCTIONS: This product may be applied after harvest of Roundup Ready soybeans. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**11.5 Sugar beets with the Roundup Ready Gene**

TYPES OF APPLICATIONS: Preplant, At-planting, Preemergence, Postemergence.

<u>Maximum Allowable Combined Application Quantities Per Season</u>	
Combined total per year for all applications	6 quarts per acre
Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Emergence to 8-leaf stage	3.75 pints per acre
Between 8-leaf stage and canopy closure	1.5 pints per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. The combined total application from crop emergence through harvest must not exceed 5.25 pints per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 2.25 pints per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 1.5 pints per acre. Allow a minimum of 30 days between last application and sugar beet harvest.

**Preplant, Preemergence, At-Planting**

USE INSTRUCTIONS: This product may be applied before, during or after planting of Roundup Ready sugar beets.

**Postemergence**

USE INSTRUCTIONS: This product may be applied postemergent over-the-top to Roundup Ready sugar beets from emergence to 30 days prior to harvest. To maximize yield potential spray sugar beets early to eliminate competing weeds. Up to 4 sequential applications of this product may be made with at least 10 days between applications. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for rate recommendations for specific annual weeds. This product will control or suppress, most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

**12.0 NON-CROP USES AROUND THE FARMSTEAD**

TYPES OF APPLICATIONS: General Weed Control, Trim-and-Edge, Greenhouse/shadehouse, Chemical Mowing, Cut Stump, Habitat Management.

**12.1 General Weed Control and Trim-And-Edge**

**I. MAIN LABEL FOR FOOD CROP USES**

**USE INSTRUCTIONS:** This product may be used to control annual weeds, perennial weeds and woody brush which are found in any part of the farmstead, including building foundations, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, prior to landscape plantings and equipment storage areas.

**TANK MIXTURES:** This product may be tank mixed with the following products, provided that the specific product is registered for use on such non-crop sites. Refer to these product labels for approved farmstead sites and application rates. For annual weeds, use 1.5 pints per acre of this product when weeds are less than 6 inches tall, 2.25 pints per acre when weeds are 6 to 12 inches tall and 3 pints per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 3 to 7.5 pints per acre in these tank mixes. For tank mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the "ANNUAL WEEDS -- HAND-HELD OR HIGH VOLUME EQUIPMENT" section of this label for recommended rates.

Arsenal	Plateau
Banvel/Clarity	Princep DF
Barricade 65WG	Princep Liquid
Diuron	Ronstar 50 WP
Endurance	Sahara
Escort	Simazine
Karmex DF	Surflan
Krovar I DF	Telar
Oust	Vanquish
Pendulum 3.3 EC	2,4-D
Pendulum WDG	

This product plus dicamba tank mixtures may not be applied by air in California.

**12.2 Greenhouse/Shadehouse**

This product may be used to control weeds in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

**12.3 Chemical Mowing**

**USE INSTRUCTIONS:** This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 4.5 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 6 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers. Use 12 fluid ounces of this product per acre when treating bermudagrass. Use 48 fluid ounces of this product per acre when treating torpedograss or paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

**PRECAUTIONS, RESTRICTIONS:** Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

**12.4 Cut Stump**

**TYPES OF APPLICATION:** Treating cut stumps in any non-crop site listed on this label

**USE INSTRUCTIONS:** This product will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50- to 100-percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in

## I. MAIN LABEL FOR FOOD CROP USES

reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion

Alder	Reed, giant
Eucalyptus	Saltcedar
Madrone	Sweetgum
Oak	Tanoak
Pepper, brazilian	Willow
Pine, Austrian	

**PRECAUTIONS, RESTRICTIONS:** Do not make cut stump applications when the roots of desirable woody brush or trees may be grafted to the roots of the cut stump. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

### 12.5 Habitat Management

**TYPES OF USES:** Habitat Restoration and Maintenance, Wildlife Food Plots, Wildlife Food Plots Containing Roundup Ready Canola.

#### Habitat Restoration and Maintenance

**USE INSTRUCTIONS:** This product may be used to control exotic and other undesirable vegetation in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement.

#### Wildlife Food Plots

**USE INSTRUCTIONS:** This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species, including Roundup Ready Canola, may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage. For specific product application instructions in Roundup Ready canola wildlife food plots, see the "CANOLA WITH THE ROUNDUP READY GENE" section of this label.

**PRECAUTIONS/RESTRICTIONS:** Do not process treated Roundup Ready canola seed from wildlife food plots for food or domestic livestock feed. Do not graze or feed treated Roundup Ready canola from wildlife food plots to domestic livestock. There are no rotational restrictions for planting any wildlife food species or for allowing native species to repopulate the area following applications of this product.

### 13.0 ANNUAL WEEDS RATE TABLE

(Alphabetically by Species)

**LISTED RATES APPLY FOR WATER CARRIER VOLUMES OF 3 TO 10 GALLONS PER ACRE FOR GROUND APPLICATIONS AND 3 TO 5 GALLONS PER ACRE FOR AERIAL APPLICATIONS.**

Apply to actively growing annual weeds. Annual weeds are generally easiest to control when they are small. Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements. Do not tank mix with soil residual herbicides when using these rates unless otherwise specified. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment. This product may be used up to 48 fluid ounces per acre where heavy weed densities exist.

500 of 1609

I. MAIN LABEL FOR FOOD CROP USES

ANNUAL WEEDS RATE TABLE

WEED SPECIES	RATE (fluid ounces per acre)				
	12	18	24	30	36
	Maximum height/length (in inches)				
Ammannia, purple	3	6	12	-	18
Annoda, spurred	-	2	3	5	8
Barley	18	18+	-	-	-
Barnyardgrass	-	3	6	7	9
Bassia, fivehook	-	-	6	-	-
Beggarweed, Florida	-	5	8	-	-
Bittercress	12	20	-	-	-
Bluegrass, annual	10	-	-	-	-
Bluegrass, bulbous	6	-	-	-	-
Brome, downy <sup>1,2</sup>	6	12	-	-	-
Brome, Japanese	6	12	24	-	-
Browntop panicum	6	8	12	-	24
Buckwheat, wild <sup>3</sup>	-	1	2	-	-
Burcucumber	-	6	12	-	18
Buttercup	12	20	-	-	-
Carolina geranium	-	-	4	-	9
Carpetweed	-	6	12	-	-
Cheat <sup>2</sup>	6	20	-	-	-
Chervil	20	-	-	-	-
Chickweed	-	12	18	-	-
Cocklebur	12	18	24	-	36
Copperleaf, hophornbeam	-	2	4	-	6

5/02/09

I. MAIN LABEL FOR FOOD CROP USES

Copperleaf, Virginia				-	2	4	-	6			
Coreopsis, plains				-	6	12	-	18			
Corn, volunteer				6	12	20	-	-			
Corn speedwell				12	-	-	-	-			
Crabgrass				3	6	12	-	-			
Crowfootgrass				-	-	6	-	12			
Cutleaf evening primrose				-	-	3	-	6			
Devilsclaw (unicorn plant)				-	3	6	-	-			
Dwarf dandelion				12	-	-	-	-			
Eastern manna grass				8	12	-	-	-			
Eclipta				-	4	8	12	-			
Fall panicum				4	-	6	-	12			
Falsedandelion				-	20	-	-	-			
Falseflax, smallseed				12	-	-	-	-			
Fiddleneck				-	6	12	-	-			
Field pennycress				6	12	-	-	-			
Filaree				-	-	6	-	12			
Fleabane, annual				6	20	-	-	-			
Fleabane, hairy				-	-	6	-	10			
( <i>Conyza bonariensis</i> )											
Fleabane, rough				3	6	12	-	-			
Florida pusley				-	-	4	-	6			
Foxtail, giant, bristly, yellow				6	12	20	-	-			
Foxtail, Carolina				10	-	-	-	-			
Foxtail, green				12	-	-	-	-			
Goatgrass, jointed				6	12	-	-	-			
Goosegrass				-	3	6	-	12			
Grain sorghum (milo)				6	12	20	-	-			

## I. MAIN LABEL FOR FOOD CROP USES

Groundcherry				-	3	6	-	9			
Groundsel, common				-	6	10	-	-			
Hemp sesbania				-	2	4	6	8			
Henbit				-	-	6	-	12			
Horseweed/ Marestail											
( <i>Conyza canadensis</i> )				-	6	12	-	18			
Itchgrass				6	8	12	-	18			
Jimsonweed				-	-	12	-	18			
Johnsongrass, seedling				6	12	18	-	24			
Junglerice				-	3	6	7	9			
Knotweed				-	-	6	-	12			
Kochia <sup>4</sup>				-	3 to 6	12	-	-			
Lambsquarters				-	6	12	-	20			
Little barley				6	12	-	-	-			
London rocket				6	-	24	-	-			
Mayweed				-	2	6	12	18			
Morningglory, annual ( <i>Ipomoea spp</i> )				-	-	3	-	6			
Mustard, blue				6	12	18	-	-			
Mustard, tansy				6	12	18	-	-			
Mustard, tumble				6	12	18	-	-			
Mustard, wild				6	12	18	-	-			
Nightshade, black				-	4	6	-	12			
Nightshade, hairy				-	4	6	-	12			
Oats				3	6	18	-	-			
Pigweed species				-	12	18	24	-			
Prickly lettuce				-	6	12	-	-			
Purslane				-	-	3	-	6			
Ragweed, common				-	6	12	-	18			
Ragweed, giant				-	6	12	-	18			
Red rice				-	-	4	-	-			
Rye,				6	18	18+	-	-			

I. MAIN LABEL FOR FOOD CROP USES

volunteer/cereal <sup>2</sup>											
Ryegrass				-	-	6	-	12			
Sandbur, field				6	12	-	-	-			
Sandbur, longspine				6	12	-	-	-			
Shattercane				6	12	20	-	-			
Shepherd's-purse				6	12	-	-	-			
Sicklepod				-	2	4	-	8			
Signalgrass, broadleaf				-	3	6	7	9			
Smartweed, ladythumb				-	-	6	-	9			
Smartweed, Pennsylvania				-	-	6	-	9			
Sowthistle, annual				-	-	6	-	12			
Spanishneedles				-	-	6	-	12			
Speedwell, purslane				12	-	-	-	-			
Sprangletop				6	12	20	-	-			
Spurge, prostrate				-	6	12	-	-			
Spurge, spotted				-	6	12	-	-			
Spurry, umbrella				6	-	-	-	-			
Stinkgrass				-	12	-	-	-			
Sunflower				12	18	-	-	-			
Swinecress				-	5	12	-	-			
Teaweed/ Prickly sida				-	2	4	-	6			
Texas panicum				6	8	12	-	24			
Thistle, Russian <sup>5</sup>				-	6	12	-	-			
Velvetleaf				-	-	6	-	12			
Virginia pepperweed				-	18	-	-	-			
Waterhemp				-	-	6	-	12			
Wheat <sup>2</sup>				6	12	18	-	-			
Wheat,				-	6	12	-	18			

I. MAIN LABEL FOR FOOD CROP USES

(overwintered)										
Wild oats			3	6	18	-	-			
Wild proso millet			-	6	12	-	18			
Witchgrass			-	12	-	-	-			
Woolly cupgrass			-	6	12	-	-			
Yellow rocket			-	12	20	-	-			

- <sup>1</sup> For control of downy brome in no-till systems, use 18 fluid ounces per acre.
- <sup>2</sup> Performance is better if application is made before this weed reaches the boot stage of growth.
- <sup>3</sup> Use 18 fluid ounces per acre of this product to control wild buckwheat in the cotyledon to 2-leaf stage. Use 24 fluid ounces per acre to control 2- to 4-leaf wild buckwheat. For improved control of wild buckwheat over 2 inches in size, use sequential treatments of 24 fluid ounces followed by 24 fluid ounces of this product per acre.
- <sup>4</sup> Do not treat kochia in the button stage.
- <sup>5</sup> Control of Russian thistle may vary based on environmental conditions and spray coverage. Whenever possible, a tank mixture with 2,4-D as described below may improve control.

**13.1 Annual Weeds -- Rates for Higher Water Carrier Volumes**

For ground applications with water carrier volumes between 11 and 40 gallons per acre and aerial applications between 6 and 15 gallons per acre, apply 1.5 to 3 pints of this product per acre. Use 1.5 pints per acre if weeds are less than 6 inches tall, 2.25 pints per acre if weeds are 6 to 12 inches tall and 3 pints per acre if weeds are greater than 12 inches tall. These rates will provide control of weeds listed in the "ANNUAL WEEDS RATE TABLE". Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

**13.2 Annual Weeds -- Tank Mixtures with 2,4-D or Dicamba, Tordon 22K**

9 to 12 fluid ounces of this product plus 0.25 pound of dicamba or 0.5 pound of 2,4-D or 1 to 2 fluid ounces of Tordon 22K per acre will control the following weeds with the maximum height or length indicated: 6 inches -- prickly lettuce, marestalk/horseweed, morning glory, kochia (dicamba only) wild buckwheat (Tordon 22K only); 12 inches -- cocklebur, lambsquarters, pigweed, Russian thistle (2,4-D only).

12 fluid ounces of this product plus 0.5 pound of 2,4-D per acre will control the following weeds when they are a maximum height or length of 6 inches: common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Ensure that the specific product is registered for application at the desired site. Some crop injury may occur if dicamba or Tordon 22K is applied within 45 days of planting.

DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.

**13.3 Annual Weeds -- Hand-Held or High-Volume Equipment**

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE", apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 0.75-percent solution.

**I. MAIN LABEL FOR FOOD CROP USES**

For best results, use a 1.5-percent solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods that result in less than complete coverage, use a 4-percent solution for annual and perennial weeds and a 4- to 8-percent solution for woody brush and trees.

**13.4 Annual Weeds -- Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems**

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington. In Oregon and Washington, do not exceed 1 pound of atrazine per acre.

18 to 22 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 22 fluid ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 0.125 pound of dicamba for control). Ensure that the specific atrazine product is registered for application at the desired site.

**14.0 PERENNIAL WEEDS RATE TABLE**

(Alphabetically by Species)

Apply to actively growing perennial weeds.

**NOTE:** If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the recommended stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage.

Best results are obtained when soil moisture is adequate for active weed growth.

Weed Species	Rate (PT/A)	Water Volume (GPA)	Hand-Held % Solution
Alfalfa	1.5 - 3	3 - 10	1.5%

Make applications after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed	6	3 - 20	1.25%
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For partial control, apply when most of the plants are in bloom. Repeat applications will be required to achieve control.

Anise (fennel) <sup>1</sup>	--	--	0.75 - 1.5%
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Apply as a spray-to-wet treatment.

Bahiagrass <sup>2</sup>	4.5 - 7.5	3 - 20	1.5%
Bentgrass	2.25	10 - 20	1.5%

For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results.

Bermudagrass	4.5 - 7.5	3 - 20	1.5%
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I. MAIN LABEL FOR FOOD CROP USES

For control, apply 7.5 pints of this product per acre. For partial control, apply 4.5 pints per acre. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to achieve control.

<b>Bermudagrass, water (knotgrass)</b>	<b>1.5 - 2.25</b>	<b>5 - 10</b>	<b>1.5%</b>
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Apply 36 fluid ounces of this product in 5 to 10 gallons of water per acre. Apply when water Bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

Fall applications only: Apply 1.5 pints of this product in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water Bermudagrass that is 12 to 18 inches in length.

This product is not registered in California for use on water Bermudagrass.

<b>Bindweed, field</b>	<b>0.75 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>
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Do not treat field bindweed under drought stress, as good soil moisture is necessary for active growth.

For control, apply 6 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6 pints east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.

Also for control, apply 3 pints of this product plus 0.5 pound of dicamba in 10 to 20 gallons of water per acre. Do not apply by air.

For suppression on irrigated agricultural land, apply 1.5 to 3 pints of this product plus 1 pound of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 12 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

**In California only**, apply 1.5 to 7.5 pints of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.

<b>Bluegrass, Kentucky</b>	<b>1.5 - 3</b>	<b>3 - 40</b>	<b>1.5%</b>
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Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

<b>Blueweed, Texas</b>	<b>4.5 - 7.5</b>	<b>3 - 40</b>	<b>1.5%</b>
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Apply 6 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6 pints per acre east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.

<b>Brackenfern</b>	<b>4.5 - 6</b>	<b>3 - 40</b>	<b>1%</b>
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Apply to fully expanded fronds that are at least 18 inches long.

<b>Bromegrass, smooth</b>	<b>1.5 - 3</b>	<b>3 - 40</b>	<b>1.5%</b>
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Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of

I. MAIN LABEL FOR FOOD CROP USES

this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

<b>Bursage, woolly-leaf</b>	--	<b>3 - 20</b>	<b>1.5%</b>
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For control, apply 3 pints of this product plus 0.5 pound of dicamba per acre. For partial control, apply 1.5 pints of this product plus 0.5 pound of dicamba per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

<b>Canarygrass, reed<sup>2</sup></b>	<b>3 - 4.5</b>	<b>3 - 40</b>	<b>1.5%</b>
<b>Cattail<sup>2</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 40</b>	<b>1.5%</b>
<b>Clover; red or white<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>

Also for control, apply 12 to 24 fluid ounces of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre.

<b>Cogongrass</b>	<b>4.5 - 7.5</b>	<b>10 - 40</b>	<b>1.5%</b>
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Apply when cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to achieve control.

<b>Dallisgrass<sup>2</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>
<b>Dandelion<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 40</b>	<b>1.5%</b>

Also for control, apply 12 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre.

<b>Dock, curly<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 40</b>	<b>1.5%</b>
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Also for control, apply 12 to 24 fluid ounces of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre.

<b>Dogbane, hemp</b>	<b>6</b>	<b>3 - 40</b>	<b>1.5%</b>
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Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall.

For suppression, apply 12 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

<b>Fescue (except tall)<sup>2</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>
<b>Fescue, tall</b>	<b>1.5 - 4.5</b>	<b>3 - 40</b>	<b>1.5%</b>

Apply 4.5 pints of this product per acre when most plants have reached boot-to-early seedhead stage of development.

Fall applications only: Apply 24 fluid ounces of this product in 3 to 10 gallons of water per acre. Apply to fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 12 fluid ounces per acre of this product will improve long-term control and control seedlings germinating after fall treatments or the following spring.

<b>Guineagrass</b>	<b>4.5</b>	<b>3 - 40</b>	<b>0.75%</b>
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Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. In Texas and ridge of Florida, use 3 pints for control. In the flatwoods region of Florida, 4.5 pints is required for control.

<b>Horsenettle<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>
<b>Horseradish</b>	<b>6</b>	<b>3 - 40</b>	<b>1.5%</b>

## I. MAIN LABEL FOR FOOD CROP USES

Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.

<b>Iceplant<sup>1</sup></b>	--	--	<b>1.5 - 2%</b>	
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Thorough coverage is necessary for best control.

<b>Jerusalem artichoke<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>	
<b>Johnsongrass</b>	<b>0.75 - 4.5</b>	<b>3 - 40</b>	<b>0.75%</b>	

In annual cropping systems apply 1.5 to 3 pints of this product per acre. Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage (no-till) is not practiced, apply 3 - 4.5 pints of this product in 10 to 40 gallons of water per acre.

For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank mix with residual herbicides when using 1.5 pints of this product per acre.

For burndown of Johnsongrass, apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression)--Apply a 0.75-percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

<b>Kikuyugrass</b>	<b>3 - 4.5</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth). Allow 3 or more days after application before tillage.

<b>Knapweed</b>	<b>6</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.

<b>Lantana</b>	--	--	<b>0.75 - 1%</b>	
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Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

<b>Lespedeza<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>	
<b>Milkweed, common</b>	<b>4.5</b>	<b>3 - 40</b>	<b>1.5%</b>	

Apply when most plants have reached the late bud to flower stage of growth.

<b>Muhly, wirestem</b>	<b>1.5 - 3</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Use 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or non-crop areas. Spray when the wirestem muhly is 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.

<b>Mullein, common<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>	
<b>Napiergrass<sup>2</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>	
<b>Nightshade, silverleaf</b>	<b>3</b>	<b>3 - 10</b>	<b>1.5%</b>	

Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost.

<b>Nutsedge, purple or yellow</b>	<b>0.75 - 4.5</b>	<b>3 - 40</b>	<b>0.75 - 1.5%</b>	
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Apply 4.5 pints of this product per acre or apply a 0.75- to 1.5-percent solution for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at

590A169

I. MAIN LABEL FOR FOOD CROP USES

rhizome tips. Nutlets that have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications: 1.5 to 3 pints of this product in 3 to 10 gallons of water per acre will also provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For partial control of existing plants, apply 12 to 48 fluid ounces of this product in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.

<b>Orchardgrass</b>	<b>1.5 - 3</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

Orchardgrass sods going to no-till corn: Apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

<b>Pampasgrass</b>	--	--	<b>1.5%</b>	
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Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

<b>Paragrass<sup>2</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 20</b>	<b>1.5%</b>	
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<b>Phragmites</b>	<b>4.5 - 7.5</b>	<b>10 - 40</b>	<b>0.75 - 1.5%</b>	
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For partial control and best results, treat during late summer or fall when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to achieve control. Visual control symptoms will be slow to develop.

<b>Poison hemlock</b>	--	--	<b>0.75 - 1.5%</b>	
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For hand held, apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Thorough coverage is necessary for best control.

<b>Pokeweed, common</b>	<b>1.5</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Apply to actively growing plants up to 24 inches tall.

<b>Quackgrass</b>	<b>1.5 - 4.5</b>	<b>3 - 40</b>	<b>1.5%</b>	
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In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 3 pints of this product. Do not tank mix with residual herbicides when using the 1.5-pint rate. Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results.

In pastures, sods or non-crop areas where deep tillage does not follow application: Apply 3 to 4.5 pints of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.

<b>Redvine</b>	<b>1.25 - 3</b>	<b>5 - 10</b>	<b>1.5%</b>	
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For suppression, apply 18 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 3 pints per acre. Apply recommended rates in 5 to 10 gallons of water per acre. Apply in late September or early October to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

<b>Reed, giant</b>	--	--	<b>1.5%</b>	
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I. MAIN LABEL FOR FOOD CROP USES

Best results are obtained when applications are made in late summer to fall.

<b>Ryegrass, perennial</b>	<b>1.5 - 4.5</b>	<b>3 - 40</b>	<b>0.75%</b>	
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In annual cropping systems apply 1.5 to 3 pints of this product per acre. Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage (no-till) is not practiced, apply 3 - 4.5 pints of this product in 10 to 40 gallons of water per acre.

For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank mix with residual herbicides when using 1.5 pints of this product per acre.

<b>Smartweed, swamp<sup>1</sup></b>	<b>4.5 - 7.5</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Apply 12 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall.

<b>Sowthistle, perennial</b>	<b>3 - 4.5</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

<b>Spurge, leafy</b>	<b>--</b>	<b>3 - 10</b>	<b>1.5%</b>	
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For suppression, apply 12 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.

<b>Starthistle, yellow</b>	<b>3</b>	<b>10 - 40</b>	<b>1.5%</b>	
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Best results are obtained when applications are made during the rosette, bolting and early flower stages.

<b>Sweet potato, wild</b>	<b>--</b>	<b>--</b>	<b>1.5%</b>	
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For partial control apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

<b>Thistle, artichoke</b>	<b>--</b>	<b>--</b>	<b>1.5%</b>	
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For partial control apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

<b>Thistle, Canada</b>	<b>3 - 4.5</b>	<b>3 - 40</b>	<b>1.5%</b>	
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Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression in the spring, apply 24 fluid ounces of this product, or 12 fluid ounces of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

<b>Timothy<sup>2</sup></b>	<b>3 - 4.5</b>	<b>3 - 40</b>	<b>1.5%</b>	
<b>Torpedograss</b>	<b>6 - 7.5</b>	<b>3 - 40</b>	<b>1.5%</b>	

For partial control, apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to achieve control. Fall treatments must be applied before frost.

<b>Trumpet creeper</b>	<b>3</b>	<b>5 - 10</b>	<b>1.5%</b>	
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6/10/09

I. MAIN LABEL FOR FOOD CROP USES

For partial control, apply in late September or October, to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Vaseygrass <sup>2</sup>	4.5 - 7.5	3 - 20	1.5%	
Velvetgrass <sup>2</sup>	4.5 - 7.5	3 - 20	1.5%	
Wheatgrass, western <sup>2</sup>	3 - 4.5	3 - 40	1.5%	

<sup>1</sup>Apply when most plants have reached the early bud stage of growth.

<sup>2</sup>Apply when most plants have reached the early heading stage of growth.

15.0 WOODY BRUSH AND TREES RATE TABLE

(Alphabetically by Species)

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Unless otherwise directed, apply broadcast treatments in 3 to 40 gallons of water per acre. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Weed Species	Rate (PT/A)	Hand-Held % Solution
Alder	4.5 - 6	0.75 - 1.5%
Ash <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Aspen, quaking	3 - 4.5	0.75 - 1.5%
Bearmat (Bearclover) <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Beech <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Birch	3 - 7.5	0.75%
Blackberry	4.5 - 6	0.75 - 1.5%.

Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a 0.75-percent solution of this product. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 4.5 to 6 pints of this product in 10 to 40 gallons of water per acre.

Blackgum	3 - 7.5	0.75 - 1.5%
Bracken	3 - 7.5	0.75 - 1.5%
Broom; French, Scotch	--	1.5%
Buckwheat, California <sup>1,2</sup>	--	0.75 - 1.5%
Cascara <sup>1</sup>	3 - 7.5	0.75 - 1.5%

I. MAIN LABEL FOR FOOD CROP USES

Catsclaw <sup>1</sup>	--	0.75 - 1.5%
Ceanothus <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Chamise <sup>2</sup>	--	0.75%
Cherry; bitter, black, pin	3 - 4.5	0.75 - 1.5%
Coyote brush	--	1.5%

Apply when at least 50 percent of the new leaves are fully developed.

Dogwood <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Elderberry	3	0.75%
Elm <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Eucalyptus	--	1.5%

For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed eucalyptus plants.

Florida holly (Brazilian Peppertree) <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Gorse <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Hasardia <sup>1,2</sup>	--	0.75 - 1.5%
Hawthorn	3 - 4.5	0.75 - 1.5%
Hazel	3	0.75%
Hickory <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Honeysuckle	3 - 6	0.75 - 1.5%
Hornbeam, American <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Kudzu	6	1.5%

Repeat applications may be required to achieve control.

Locust, black <sup>1</sup>	3 - 6	0.75 - 1.5%
Madrone resprouts <sup>1</sup>	--	1.5%

Apply to resprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Manzanita <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Maple, red	3 - 6	0.75 - 1.5%

Apply a 0.75- to 1.5-percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 3 to 6 pints of this product per acre.

Maple, sugar	--	0.75 - 1.5%
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Apply when at least 50 percent of the new leaves are fully developed.

Monkey flower <sup>1,2</sup>	--	0.75 - 1.5%
Oak; black, white <sup>1</sup>	3 - 6	0.75 - 1.5%
Oak, post	4.5 - 6	0.75 - 1.5%
Oak; northern,	--	0.75 - 1.5%

Apply when at least 50 percent of the new pin leaves are fully developed

I. MAIN LABEL FOR FOOD CROP USES

Oak; southern red	3 - 4.5	0.75 - 1.5%
Persimmon <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Pine	3 - 7.5	0.75 - 1.5%
Poison ivy/Poison oak	6 - 7.5	1.5%

Repeat applications may be required to achieve control. Fall treatments must be applied before leaves lose green color.

Poplar, yellow <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Redbud, eastern	3 - 7.5	0.75 - 1.5%
Rose, multiflora	3	0.75%

Treatments should be made prior to leaf deterioration by leaf-eating insects.

Russian olive <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Sage, black <sup>2</sup>	--	0.75%
Sage, white <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Sage brush, California <sup>2</sup>	--	0.75%
Salmonberry	3	0.75%
Saltcedar	3 - 7.5	0.75 - 1.5%
Sassafras <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Sourwood <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Sumac; poison, smooth, winged <sup>1</sup>	3 - 6	0.75 - 1.5%
Sweetgum	3 - 4.5	0.75 - 1.5%
Swordfern <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Tallowtree, Chinese <sup>2</sup>	--	0.75%
Tanoak resprouts <sup>1</sup>	--	1.5%

Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall applications.

Thimbleberry	3	0.75%
Tobacco, tree <sup>1</sup>	--	0.75 - 1.5%
Trumpet creeper	3 - 4.5	0.75 - 1.5%
Vine maple <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Virginia creeper	3 - 7.5	0.75 - 1.5%
Waxmyrtle, southern <sup>1</sup>	3 - 7.5	0.75 - 1.5%
Willow	4.5 - 6	0.75%

<sup>1</sup> Partial Control

<sup>2</sup> Thorough coverage of foliage is necessary for best results.

16.0 LIMIT OF WARRANTY AND LIABILITY

I. MAIN LABEL FOR FOOD CROP USES

This 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.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the fullest extent permitted by law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bullet, Certainty, Degree, Harness, Lariat, Lasso, Micro-Tech, Monsanto and Vine symbol, Roundup and Roundup Ready are trademarks of Monsanto Technology LLC.

All other are the property of their respective owners.

No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-343

In case of an emergency involving this product,

Call Collect, day or night, (314) 694-4000.

© [DATE] MONSANTO COMPANY

800 N. LINDBERGH BLVD.

ST. LOUIS, MISSOURI, 63167 USA

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES
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Table of Contents: Crop Supplemental labeling

	Name	Approval Date	
A	FOR USE IN DORMANT ALFALFA	10-Nov-2003	
B	FOR THE CONTROL OF ANNUAL WEEDS IN COASTAL BERMUDAGRASS PASTURES PRIOR TO SPRING GROWTH OR IMMEDIATELY AFTER FIRST CUTTING	10-Nov-2003	
C	FOR DISTRIBUTION AND USE ONLY WITHIN SOUTH DAKOTA. FOR NON-SELECTIVE CONTROL OF LISTED ANNUAL WEEDS IN SMALL GRAIN CROPPING SYSTEMS	10-Nov-2003	
D	TANK MIX WITH Aim <sup>®</sup> Herbicide FOR IMPROVED SYMPTOMS IN PRE-PLANT APPLICATIONS IN CORN, SOYBEANS OR WHEAT	10-Nov-2003	
E	TANK MIX WITH RESOURCE <sup>®</sup> FOR IMPROVED SYMPTOMS IN PRE-PLANT APPLICATIONS IN CORN OR SOYBEANS	10-Nov-2003	
F	FOR AERIAL APPLICATION IN CALIFORNIA ONLY	10-Nov-2003	
G	FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY (From February 15 through March 31 Only)	3-Nov-1998	
H	FOR AERIAL APPLICATION IN ARKANSAS ONLY	3-Nov-1998	
I	USE ONLY FOR SEED PRODUCTION OF ALFALFA WITH THE ROUNDUP READY <sup>®</sup> GENE	10-Nov-2003	
J	USE ONLY FOR SEED PRODUCTION OF LETTUCE WITH THE ROUNDUP READY <sup>®</sup> GENE	10-Nov-2003	
K	USE ONLY FOR SEED PRODUCTION OF RICE WITH THE ROUNDUP READY <sup>®</sup> GENE	10-Nov-2003	
L	FOR USE ONLY FOR SEED PRODUCTION OF WHEAT WITH THE ROUNDUP READY <sup>®</sup> GENE	10-Nov-2003	
M	FOR CONTROLLING BARNYARDGRASS ( <i>ECHINOCHLOA CRUS-GALLI</i> ) IN RICE USING RENOVATION TREATMENTS IN CALIFORNIA ONLY	10-Nov-2003	
N	FOR NEW COTTON LINES WITH THE ROUNDUP READY GENE – IN-CROP APPLICATIONS	10-Nov-2003	
O	FOR USE ON ROUNDUP READY CANOLA AT HIGHER APPLICATION RATES	10-Nov-2003	

66 of 169

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

P	FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, <i>CONYZA CANADENSIS</i> ) IN COTTON, CORN AND SOYBEANS.	10-Nov-2003	
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67 of 169

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

**SUPPLEMENTAL LABELING**

READ THE ENTIRE LABEL FOR [INSERT BRAND NAME] BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

When using [INSERT BRAND NAME] as permitted according to this supplemental labeling, read and follow all applicable directions, restrictions, and precautions on the label booklet provided with the pesticide container and on this supplemental labeling. This supplemental labeling must be in the possession of the user at the time of pesticide application.

**[INSERT BRAND NAME] LOGO**

Herbicide

EPA Reg. No. 524-343

Keep out of reach of children.

**CAUTION!**

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

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[INSERT BRAND NAME] is a registered trademark of Monsanto Technology LLC.

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**DIRECTIONS FOR USE**

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

This labeling must be in the possession of the user at the time of herbicide application.

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "GENERAL INFORMATION" and "MIXING" sections of the label booklet for [INSERT BRAND NAME] for essential product performance information.

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**[INSERT SUPPLEMENTAL DIRECTIONS FOR USE HERE]**

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Read the "Limit of Warranty and Liability" in the label booklet for [INSERT BRAND NAME] before using. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

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800 N. LINDBERGH BLVD.  
ST. LOUIS, MISSOURI 63167

**A. FOR USE IN DORMANT ALFALFA**

**USE INSTRUCTIONS**

68 of 169

## II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

This product will control or suppress many weeds, including quackgrass, downy brome and cheatgrass in dormant alfalfa.

Apply 6 to 9 fluid ounces per acre of this product. Apply in the spring to alfalfa that is dormant. Applications should be made after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliolate leaf expansion of the alfalfa. Applications made after expansion of the first trifoliolate leaf of the alfalfa will cause growth reduction and reduced crop yield.

Do not use ammonium sulfate when spraying dormant alfalfa with [INSERT BRAND NAME].

Do not use this product where a slight yield reduction in the first cutting of alfalfa cannot be tolerated.

Do not make more than one application per year.

Allow 36 hours after application before grazing livestock or harvesting.

Slight discoloration of the alfalfa may occur, but the alfalfa will regreen and regrow under moist soil conditions as effects of this product wear off.

Application of this product is limited to persons who have attended a Monsanto-approved training program. Application of this product can cause crop injury. Any crop injury is the sole responsibility of the applicator.

### B. FOR THE CONTROL OF ANNUAL WEEDS IN COASTAL BERMUDAGRASS PASTURES PRIOR TO SPRING GROWTH OR IMMEDIATELY AFTER FIRST CUTTING

#### USE INSTRUCTIONS

This product may be applied at 12 fluid ounces per acre to control the weeds listed below and most other winter annual grass and broadleaf weeds in established coastal Bermudagrass pastures.

Annual bluegrass	Oats
Cheat	Ryegrass, Italian
Crabgrass	Sandbur, field
Henbit	Sunflower
Johnsongrass, seedling	Wheat
Little barley	Wild mustard

#### TIMING OF APPLICATION

Applications prior to spring growth: Apply this product in the late winter or early spring but before new coastal Bermudagrass growth begins in the spring. Applications to new growth can damage the Bermudagrass.

Remove domestic livestock from the pasture before making the application. Wait 60 days after making this application before grazing or harvesting the treated area.

Applications following the first cutting: Apply this product after the first Bermudagrass cutting when the Bermudagrass has not yet begun to regrow. Applications made after regrowth has begun can damage the Bermudagrass.

Remove domestic livestock from the pasture before making the application. Wait 28 days after making this application before grazing or harvesting the treated area.

**NOTE: ONLY ONE APPLICATION PER YEAR MAY BE MADE TO ANY ONE FIELD. A SPRING APPLICATION PRIOR TO GROWTH AND AN APPLICATION FOLLOWING THE FIRST CUTTING MAY NOT BE MADE ON THE FIELD DURING THE SAME YEAR.**

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

**C. FOR DISTRIBUTION AND USE ONLY WITHIN SOUTH DAKOTA. FOR NON-SELECTIVE CONTROL OF LISTED ANNUAL WEEDS IN SMALL GRAIN CROPPING SYSTEMS**

**USE INSTRUCTIONS**

Refer to the [INSERT BRAND NAME] label for rate recommendations and weeds controlled.

For ground applications, use 3 to 5 gallons of water per acre. For aerial applications, use 2 to 3 gallons of water per acre.

**ATTENTION**

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

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this herbicide can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) that are likely to drift. **AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.**

**NOTE:** To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

Adjust boom height on ground equipment to prevent streaked, overlapped or uneven applications. Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations that dispense spray as fine spray droplets.

In aerial applications, do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Ensure uniform application. Use appropriate marking devices when applying herbicides by air.

Avoid spraying when weeds are subject to moisture stress, when dust is on foliage, or when straw canopy covers the weeds.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residue of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF PART. LANDING GEAR IS MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

**D. TANK MIX WITH Aim® Herbicide FOR IMPROVED SYMPTOMS IN PRE-PLANT APPLICATIONS IN CORN, SOYBEANS OR WHEAT**

**USE INSTRUCTIONS**

This tank mixture will significantly enhance the speed of symptomatology appearance on certain weeds when applied as a pre-plant treatment prior to corn, soybeans or wheat. This mixture may be applied prior to planting or emergence of labeled crops. This mixture will not provide residual control of weeds that are un-emerged at the time of treatment.

Combine [INSERT BRAND NAME] (1.5 pints of product per acre) and Aim (0.144 ounce per acre) in the spray tank in 10 to 20 gallons of water per acre. For best results, make applications to actively growing weeds. Ammonium sulfate at 1 to 2 percent by weight or 8.5 to 17 pounds per 100 gallons of water may be added. The addition of 2,4-D or dicamba is not recommended.

**SPECIFIC MIXING RECOMMENDATIONS**

Option 1

- 1. Fill the spray tank one-half full with water and start the agitation.

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

- 2. Add Aim at 0.144 ounce per acre and mix thoroughly.
- 3. If desired add ammonium sulfate at 1 to 2 percent by weight or 8.5 to 17 pounds per 100 gallons of spray.
- 4. Add [INSERT BRAND NAME] at 1.5 pints per acre and finish filling the spray tank with water.

Option 2

- 5. Fill the spray tank one-half full with water and start the agitation.
- 6. If desired add ammonium sulfate at 1 to 2 percent by weight or 8.5 to 17 pounds per 100 gallons of spray.
- 7. Add [INSERT BRAND NAME] at 1.5 pints per acre.
- 8. Prepare a slurry of Aim with water and add to the spray tank.

Read and follow the Aim label for additional application instructions and precautions.

Aim is a trademark of FMC Corporation.

**E. TANK MIX WITH RESOURCE® FOR IMPROVED SYMPTOMS IN PRE-PLANT APPLICATIONS IN CORN OR SOYBEANS**

**USE INSTRUCTIONS**

This tank mixture will significantly enhance the speed of symptomology appearance on certain weeds when applied as a pre-plant treatment prior to corn or soybeans. This mixture may be applied prior to planting or emergence of labeled crops. This mixture will not provide residual control of weeds that are un-emerged at the time of treatment.

Combine [INSERT BRAND NAME] (1.5 pints of product per acre) and Resource® (2.08 fluid ounces per acre) in the spray tank in 10 to 20 gallons of water per acre. For best results, make applications to actively growing weeds. Ammonium sulfate at 1 to 2 percent by weight or 8.5 to 17 pounds per 100 gallons of water may be added. The addition of 2,4-D or dicamba is not recommended.

**SPECIFIC MIXING RECOMMENDATIONS**

Option 1

- 1. Fill the spray tank one-half full with water and start the agitation.
- 2. Add Resource at 2.08 fluid ounces per acre and mix thoroughly.
- 3. If desired add ammonium sulfate at 1 to 2 percent by weight or 8.5 to 17 pounds per 100 gallons of spray.
- 4. Add [INSERT BRAND NAME] at 1.5 pints per acre and finish filling the spray tank with water.

Option 2

- 1. Fill the spray tank one-half full with water and start the agitation.
- 2. If desired add ammonium sulfate at 1 to 2 percent by weight or 8.5 to 17 pounds per 100 gallons of spray.
- 3. Add [INSERT BRAND NAME] at 1.5 pints per acre.
- 4. Add Resource at 2.08 fluid ounces per acre to the spray tank.

Read and follow the Resource label for additional application instructions and precautions.

Resource is a trademark of Valent USA Corporation.

**F. FOR AERIAL APPLICATION IN CALIFORNIA ONLY**

Aerial applications of this product are allowed in the following situations:

- 1. In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
- 2. In alfalfa and pasture renovation applications.

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

- 3. Over-the-top applications in Roundup Ready corn and cotton. Refer to further label instructions for Roundup Ready corn and Roundup Ready cotton for specific application instructions for over-the-top applications in these crops.
- 4. Preharvest in alfalfa, corn, cotton, wheat, Roundup Ready corn and Roundup Ready cotton. Refer to the further label instructions for [INSERT BRAND NAME] for Roundup Ready corn and Roundup Ready cotton for specific preharvest application instructions for each individual crop.

Do not plant subsequent crops other than those listed in the label booklet for 30 days following application.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

When tank mixing this product with 2,4-D for aerial applications, only 2,4-D amine formulations may be used. This tank mixture may be used for fallow and reduced tillage systems and alfalfa and pasture renovation applications only.

DO NOT EXCEED THE FOLLOWING MAXIMUM RATES WHEN MAKING APPLICATIONS BY AIR:

1.5 pints per acre	3 pints per acre
	Alfalfa
Corn	
Roundup Ready® Corn	
	Cotton
	Roundup Ready Cotton
	Fallow
	Reduced Tillage Systems
	Pastures
Wheat	

**Aerial Equipment**

Use the recommended rates of this product in 3 to 15 gallons of water per acre. 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 wash waters.

**AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.**

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

- 1. Do not apply within 100 feet of all desirable vegetation or crop(s).
- 2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
- 3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
- 4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

72 of 169

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations that dispense spray as fine spray droplets. Do not angle nozzles forward into the air-stream and do not increase spray volume by increasing nozzle pressure. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

**Ensure uniform application**—To avoid streaking, uneven, or over-lapped application, use appropriate marking devices. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

**G. FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY (From February 15 through March 31 Only)**

**Applicable Area**

This supplement only applies to the area contained inside the following boundaries within Fresno County, California.

- North: Fresno County line
- South: Fresno County line
- East: State Highway 99
- West: Fresno County line

**General Information**

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

**Written Recommendations**

A written recommendation **MUST** be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation **MUST** state the proximity of surrounding crops, and that conditions of each manufacturer's product label and this label have been satisfied.

**Aerial Applicator Training and Equipment**

Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

**Applications at Night**—Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of this product, call 1-800-332-3111.

For additional information on the proper aerial application of this product, call 916-784-1718.

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

**Note:** For aerial application from April 1 through February 14, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label.

**H. FOR AERIAL APPLICATION IN ARKANSAS ONLY**

**USE DIRECTIONS**

AVOID DRIFT. DO NOT APPLY INTO STILL AIR WHERE THERE IS A TEMPERATURE INVERSION LAYER LOW ENOUGH FOR FINE SPRAY PARTICLES TO BECOME SUSPENDED AND MOVE OUTSIDE THE TARGET AREA WHEN THE INVERSION LAYER MOVES. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the recommended rate of this product in 3 to 15 gallons of water per acre.

Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range are recommended.

Applications should typically be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

The distance of the outermost nozzles on the boom must not exceed 75 percent of the length of the wingspan or rotor. In many cases, reducing this distance to 65 percent of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. Avoid the use of nozzles with wide-angle discharge.

Do not apply this product when winds are in excess of 10 miles per hour.

Do not apply when there is a low-level inversion where fine spray particles could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 miles per hour.

Use the following guidelines when applications are made near crops or other desirable vegetation:

1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

**I. USE ONLY FOR SEED PRODUCTION OF ALFALFA WITH THE ROUNDUP READY® GENE**

**NOTE:** THIS PRODUCT MAY BE USED FOR CONTROL OF NON-GLYPHOSATE TOLERANT ALFALFA IN PRODUCTION FIELDS OF ALFALFA CONTAINING THE ROUNDUP READY GENE. SEVERE INJURY OR DEATH OF ALFALFA WILL RESULT IF ALFALFA VARIETIES THAT DO NOT CONTAIN THE ROUNDUP READY GENE ARE SPRAYED WITH THIS PRODUCT.

**USE INSTRUCTIONS**

This product will control non-glyphosate tolerant alfalfa in seed production fields of alfalfa containing the Roundup Ready gene. Apply up to 3 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Subsequent applications of up to 3 pints per acre each may be applied, if needed to control non-glyphosate tolerant alfalfa plants.

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

DO NOT EXCEED A MAXIMUM RATE OF 6 QUARTS OF THIS PRODUCT PER ACRE PER SEASON.

Application timing—This product can be applied to Roundup Ready alfalfa from emergence to harvest.

Treated alfalfa or the resulting seed may not be used for food or feed. Do not feed or graze treated alfalfa. Do not process treated alfalfa or resulting seed for food or feed.

J. USE ONLY FOR SEED PRODUCTION OF LETTUCE WITH THE ROUNDUP READY® GENE

NOTE: THIS PRODUCT MAY BE USED FOR CONTROL OF NON-GLYPHOSATE TOLERANT LETTUCE IN PRODUCTION FIELDS OF LETTUCE CONTAINING THE ROUNDUP READY GENE. SEVERE INJURY OR DEATH OF LETTUCE WILL RESULT IF LETTUCE VARIETIES THAT DO NOT CONTAIN THE ROUNDUP READY GENE ARE SPRAYED WITH THIS PRODUCT.

USE INSTRUCTIONS

This product will control non-glyphosate tolerant lettuce in seed production fields of lettuce containing the Roundup Ready gene. Apply up to 3 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. A second application up to 3 pints per acre may be applied, if needed to control non-glyphosate tolerant lettuce plants.

DO NOT EXCEED A MAXIMUM RATE OF 3 QUARTS OF THIS PRODUCT PER ACRE PER SEASON.

Application timing—This product can be applied to Roundup Ready lettuce from emergence to harvest.

Treated lettuce may not be used for food or feed. Do not feed or graze treated lettuce. Do not process treated lettuce for food or feed.

K. USE ONLY FOR SEED PRODUCTION OF RICE WITH THE ROUNDUP READY® GENE

NOTE: THIS PRODUCT MAY BE USED FOR CONTROL OF NON-GLYPHOSATE TOLERANT RICE IN PRODUCTION FIELDS OF RICE CONTAINING THE ROUNDUP READY GENE. SEVERE INJURY OR DEATH WILL RESULT IF RICE VARIETIES THAT DO NOT CONTAIN THE ROUNDUP READY GENE ARE SPRAYED WITH THIS PRODUCT.

USE INSTRUCTIONS

This product will control non-glyphosate tolerant rice in seed production fields of rice containing the Roundup Ready gene. Apply up to 3 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. A second application up to 3 pints per acre may be applied, if needed to control non-glyphosate tolerant rice plants.

DO NOT EXCEED A MAXIMUM RATE OF 3 QUARTS OF THIS PRODUCT PER ACRE PER SEASON.

Application timing -- This product can be applied to Roundup Ready rice from emergence to harvest.

Treated rice may not be used for food or feed. Do not feed or graze treated rice. Do not process treated rice for food or feed.

L. FOR USE ONLY FOR SEED PRODUCTION OF WHEAT WITH THE ROUNDUP READY® GENE

NOTE: THIS PRODUCT MAY BE USED FOR CONTROL OF NON-GLYPHOSATE TOLERANT WHEAT IN PRODUCTION FIELDS OF WHEAT CONTAINING THE ROUNDUP READY GENE. SEVERE INJURY OR DEATH WILL RESULT IF WHEAT VARIETIES THAT DO NOT CONTAIN THE ROUNDUP READY GENE ARE SPRAYED WITH THIS PRODUCT.

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

**USE INSTRUCTIONS**

This product will control non-glyphosate tolerant wheat in seed production fields of wheat containing the Roundup Ready gene. Apply up to 1.5 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. A second application up to 1.5 pints per acre may be applied, if needed to control non-glyphosate tolerant wheat plants.

DO NOT EXCEED A MAXIMUM RATE OF 3 PINTS OF THIS PRODUCT PER ACRE PER SEASON.

Application timing—This product can be applied to Roundup Ready wheat from emergence to harvest.

Treated wheat may not be used for food or feed. Do not feed or graze treated wheat. Do not process treated wheat for food or feed.

**M. FOR CONTROLLING BARNYARDGRASS (*ECHINOCHLOA CRUS-GALLI*) IN RICE USING RENOVATION TREATMENTS IN CALIFORNIA ONLY**

**USE INSTRUCTIONS**

This product may be applied as a renovation treatment in rice crops to control barnyardgrass infestations using ground broadcast spray or hand-held equipment. Renovation is defined as herbicide treatment that will produce crop and weed destruction in an entire field or contiguous area treated within a field. Follow the application methods and recommended treatment rates in the label booklet for [INSERT BRAND NAME] herbicide.

**PRECAUTIONS, RESTRICTIONS:** The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason. The rice straw and stubble from the treated area, including a 25-foot buffer zone on all sides, shall not be used for grazing, animal bedding or any feed purposes.

No Aerial applications are permitted for rice renovation using this supplemental label.

**N. FOR NEW COTTON LINES WITH THE ROUNDUP READY® GENE – IN-CROP APPLICATIONS**

**General Information**

**ATTENTION: MONSANTO RECOMMENDS THIS PRODUCT FOR USE ONLY OVER-THE-TOP OF OR DIRECTED ONTO IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS COTTON WITH THE ROUNDUP READY GENE. SEVERE INJURY OR DEATH OF COTTON WILL RESULT IF ANY COTTON VARIETIES NOT PROPERLY DESIGNATED AS HAVING THE ROUNDUP READY GENE ARE SPRAYED WITH THIS PRODUCT. AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS AND TREES, OTHER THAN CROPS WITH THE ROUNDUP READY GENE, SINCE SEVERE INJURY OR DESTRUCTION WILL RESULT.**

ROUNDUP READY COTTON VARIETIES MUST BE PURCHASED FROM AN AUTHORIZED LICENSED SEED SUPPLIER. THE DESIGNATION, "ROUNDUP READY", INDICATES THE COTTON VARIETY CONTAINS A PATENTED PROPRIETARY TRAIT.

**USE INSTRUCTIONS**

This product will control many troublesome weeds with over-the-top, post-directed, hooded sprayer, or preharvest applications in Roundup Ready cotton. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the [INSERT BRAND NAME] label booklet for more information.

**Maximum Allowable Yearly Rates**

Combined total per year for all applications

6 quarts per acre

76 of 169

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

Preplant, Preemergence applications	4 quarts per acre
Total over-the-top applications from cracking to layby	2 quarts per acre
Total precision post-directed or hooded applications through layby	3 pints per acre
Maximum preharvest application rate	3 pints per acre

**NOTE:** Always plant into a weed free seedbed. In no-till and stale seedbed systems, always burn down existing weeds before cotton emerges. Apply a preplant burndown treatment of 12 to 36 fluid ounces per acre of this product.

**Sprayer Preparation:** It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready cotton. Follow the cleaning procedures specified on the label of the product(s) previously used. Cotton is very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

**There are no rotational crop restrictions following applications of this product.**

**Over-the-top applications:** Up to 2 quarts per sprayed acre of this product may be applied by aerial or ground broadcast application equipment postemergence to Roundup Ready cotton from the ground cracking stage until layby. The "ANNUAL and PERENNIAL WEEDS RATE TABLES" in the label booklet for [INSERT BRAND NAME] should be used to determine application rate. Any single over-the-top application should not exceed 3 pints per sprayed acre. Sequential applications of this product must be at least 7 days apart.

With ground broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

For aerial applications, apply this product in 3 to 15 gallons of water per acre. **DO NOT EXCEED A MAXIMUM RATE OF 1.5 PINTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE ROUNDUP READY GENE.** Do not apply during low-level inversion conditions, when winds are gusty or under any other conditions that favor drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

**Post-directed or hooded applications:** In addition to the over-the-top applications, up to 3 pints per sprayed acre may be applied as a post-directed or hooded application to Roundup Ready cotton through layby. These application methods may be preferred when there is a need to direct the spray onto weeds that are growing under the crop canopy. Equipment should be used which directs the spray into the lower crop canopy so that weeds in the row are covered. For best results, make applications while weeds are small (less than 3 inches). Sequential in-crop applications must be at least 7 days apart from any other in-crop application of this product.

**ATTENTION: USE OF [INSERT BRAND NAME] IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON, HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN UNANTICIPATED RESULTS INCLUDING YIELD LOSS.**

**Weeds controlled.** For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL and PERENNIAL WEEDS RATE TABLE" sections of the label booklet. [INSERT BRAND NAME] applied at 1.5 to 3 pints per acre will control or suppress the growth of the following perennial weeds and reduce crop competition: yellow and purple nutsedge, rhizome johnsongrass, common Bermudagrass, silverleaf nightshade, trumpet creeper, and redvine. Fall preharvest applications may be required for control of these perennial weeds.

Tank mixtures with other herbicides may result in reduced weed control, or may cause crop injury and are not recommended for applications where the spray contacts the cotton plant.

77 of 169

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

Some weeds with multiple germination times or suppressed (stunted) weeds may require sequential applications of this product for control.

**Preharvest applications:** This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton any time after layby up to 7 days prior to harvest. This product may be tank mixed with DEF™ 6, Folex™, Ginstar, or Prep™ to enhance cotton leaf drop. Allow a minimum of 7 days between final application and harvest. No more than 3 pints of this product per acre may be applied preharvest (between layby and seven days prior to harvest). Do not apply more than 1.5 pints of this product per acre by air. **NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready cotton. Do not apply [INSERT BRAND NAME] preharvest to cotton grown for seed.

**PRECAUTIONS, RESTRICTIONS:** The combined total application from crop emergence until harvest must not exceed 6 quarts per acre. Allow a minimum of 7 days between final application and harvest. Tank mixtures with other herbicides may result in reduced weed control, or may cause crop injury and are not recommended for applications where the spray contacts the cotton plant. Do not apply [INSERT BRAND NAME] preharvest to cotton grown for seed.

**O. FOR USE ON ROUNDUP READY CANOLA AT HIGHER APPLICATION RATES**

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Postemergence

**DO NOT USE THIS PRODUCT ON CANOLA WITH THE ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA.**

<b>Maximum Allowable Combined Application Quantities Per Season</b>	
Preplant, At-Planting, Preemergence applications	3 pints per acre
Total in-crop application from emergence to 6-leaf stage	3 pints per acre

**Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting canola.

**Postemergence**

**USE INSTRUCTIONS:** This product may be applied postemergence to Roundup Ready canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.

**Weeds Controlled:** For specific rates of application and instructions, refer to the "ANNUAL" and "PERENNIAL WEEDS RATE TABLES" in this label.

Single Application - Apply 12 to 24 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 12 fluid ounces per acre are applied after the 4-leaf stage.

Sequential Application - Apply 24 fluid ounces per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are recommended for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass or when controlling weeds with multiple application times.

**PRECAUTIONS, RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application should not exceed 3 pints per acre. Allow a minimum of 60 days between last application and canola harvest.

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

**P. FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, *CONYZA CANADENSIS*) IN COTTON, CORN, AND SOYBEANS.**

For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre. **For tank-mix recommendations, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or Fact Sheets published separately for all herbicides used.**

**Cotton:**

**Preplant:**

For control of horseweed, apply this product (1.5 pints per acre) in a tank-mix with Clarity (8 fluid ounces per acre). This application must be made 21 to 35 days before planting and before horseweed reaches 6 inches in height. In order to avoid crop injury, a minimum interval of 21 days during which there is at least 1 inch of cumulative rainfall must be observed between Clarity application and planting of cotton.

**Post-directed (Roundup Ready® Cotton varieties only):**

Management of early season weed competition and the development of a crop height differential between cotton and the horseweed is often achieved by a combination of preplant burndown and post emergent over-the-top and/or directed applications of this product. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. In-crop post-directed applications of MSMA (2 pounds active ingredient per acre) tank-mixed with diuron (0.5 to 0.75 pounds active ingredient per acre) should be made when the temperature is 80°F or higher.

**Soybeans:**

**Preplant:**

Apply a tank mixture of this product (1.5 pints per acre) with 2,4-D (0.5 pound a.i. per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting. For areas where 2,4-D cannot be applied due to application restrictions or proximity to a sensitive crop, contact your local retailer and Monsanto representative.

**In-crop (Roundup Ready Soybean varieties only):**

It is strongly encouraged that horseweed should be controlled prior to planting using recommended preplant burndown treatments. In-crop Roundup Ready soybeans, apply a tank mixture of this product (1.5 pints per acre) with Amplify™ (0.3 ounce per acre). This treatment should be used as a salvage treatment only for a horseweed infestation that was not controlled preplant. Application should be made between full emergence of the first trifoliolate leaf and 50% flowering stage of soybeans. At the time of treatment, horseweed should not exceed 6 inches in height.

**Corn:**

**Preplant, At-Planting, Preemergence:**

Apply a tank mixture of this product (1.5 pints per acre) plus 2,4-D (0.5 pound a.i. of per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting.

Atrazine (1 to 2 pounds active ingredient per acre) may be included in the tank-mixture to provide residual control. Refer to the atrazine product label for specific use instructions.

**In-crop (Roundup Ready Corn hybrids only):**

In-crop Roundup Ready corn, apply a tank-mixture of this product (1.5 pints per acre) plus Clarity (8 to 16 fluid ounces per acre) or 2,4-D (0.5 to 1.0 pounds a.i. per acre). Apply between corn emergence and the 5-leaf stage of growth (approximately 8 inches tall).

II. SUPPLEMENTAL LABELING FOR FOOD CROP USES

ATTENTION

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

**III. MAIN LABEL FOR INDUSTRIAL, TURF& ORNAMENTAL AND FORESTRY USES**

**[INSERT BRAND NAME]**

The complete broad-spectrum postemergence professional herbicide for industrial, turf and ornamental weed control.

Alternate statement: The complete broad-spectrum postemergence professional herbicide for forestry, utility rights-of-way and aquatic weed control.

**Complete Directions for Use**

EPA Reg. No. 524-343

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, 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.

Not all products recommended on this label are registered for use in California. Check the registration status of each product in California before using.

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. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

*[Container label text for Refillable Container Label Statement]*  
THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. IT IS INTENDED THAT REPACKAGING OF THIS PRODUCT FOR DISTRIBUTION OR SALE MAY BE CONDUCTED ONLY UNDER THE TERMS OF A WRITTEN CONTRACT WITH A MONSANTO *[Container label text for Non-Refillable Container Label Statement]*  
THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION OR REPACKAGING

**CONTENTS**

**PRODUCT INFORMATION**

- 1 1.0 INGREDIENTS**
- 2 2.0 IMPORTANT PHONE NUMBERS**
- 3 3.0 PRECAUTIONARY STATEMENTS**
  - 3.1 Hazards to Humans and Domestic Animals
  - 3.2 Environmental Hazards
  - 3.3 Physical or Chemical Hazards

**DIRECTIONS FOR USE**

- 4 4.0 STORAGE AND DISPOSAL**
- 5 5.0 GENERAL INFORMATION**  
**(How This Product Works)**

8/09/09

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

- 6** 6.0 **MIXING**
  - 6.1 Mixing with Water
  - 6.2 Tank Mixtures
  - 6.3 Tank Mixing Procedure
  - 6.4 Mixing Percent Solutions
  - 6.5 Surfactant
  - 6.6 Colorants or Dyes
  - 6.7 Drift Reduction Additives
- 7** 7.0 **APPLICATION EQUIPMENT AND TECHNIQUES**
  - 7.1 Aerial Equipment
  - 7.2 Ground Broadcast Equipment
  - 7.3 Hand-Held Equipment
  - 7.4 Selective Equipment
  - 7.5 Injection Systems
- 8** 8.0 **SITE AND USE INSTRUCTIONS**
  - 8.1 Aquatic Sites
  - 8.2 Cut Stump
  - 8.3 Forestry Conifer and Herbaceous Release Sites
  - 8.4 Forestry Site Preparation
  - 8.5 General Non-crop Areas and Industrial Sites
  - 8.6 Habitat Management
  - 8.7 Injection and Frill (Woody Brush and Trees)
  - 8.8 Ornamentals, Plant Nurseries, and Christmas Trees
  - 8.9 Parks, Recreational and Residential Areas
  - 8.10 Railroads
  - 8.11 Roadsides
  - 8.12 Utility Sites
- 9** 9.0 **PASTURE AND RANGELANDS**
  - 9.1 Pastures
  - 9.2 Rangelands
- 10** 10.0 **WEEDS CONTROLLED**
  - 10.1 Annual Weeds
  - 10.2 Perennial Weeds
  - 10.3 Woody Brush and Trees
- 11** 11.0 **LIMIT OF WARRANTY AND LIABILITY**

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

**PRODUCT INFORMATION**

**1.0 INGREDIENTS**

ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt ..... 53.8%

OTHER INGREDIENTS: ..... 46.2%

100.0%

\*Contains 648 grams per liter or 5.4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per liter or 4.0 pounds per U.S. gallon of the acid, glyphosate.

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!**

DOMESTIC ANIMALS: 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, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE (Personal Protective Equipment). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

**User Safety Recommendations:**

Users should:

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

**3.2 Environmental Hazards**

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

In case of SPILL or LEAK, soak up and remove to a landfill.

**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. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental Labeling or Fact Sheets. Supplemental labeling can be found on the Internet at [www.cdms.net](http://www.cdms.net) or [www.greenbook.net](http://www.greenbook.net) websites or obtained by contacting your Authorized Monsanto Retailer or Monsanto Company Representative.

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.

**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 4 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, are: coveralls, shoes plus socks, and chemical resistant gloves made of any waterproof material.

**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.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

**4.0 STORAGE AND DISPOSAL**

84 of 169

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal.

**PESTICIDE STORAGE:** STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.

[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

**CONTAINER HANDLING AND DISPOSAL:** See container label for container handling and disposal instructions and refilling limitations.

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[Alternate container statement: Nonrefillable container. Do not reuse or refill this container.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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. 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.

Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[Alternate container disposal statement: Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

**[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 5-GALLON CAPACITY]**

Nonrefillable container. Do not reuse or refill this container.

[Alternate container statement: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one 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 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. 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.

Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

[Alternate container disposal statement: Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[Optional container label statement: Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-768-6387.]

[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT CONTAINERS]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available. To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-768-6387.

[Optional container label statement: Return Properly Rinsed Container to Monsanto for Recycling, Contact 1-800-768-6387.]

[CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT CONTAINERS AS DEFINED IN 40 CFR 156.3]

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

5.0 GENERAL INFORMATION

(How This Product Works)

**Product Description:** This product is a postemergence, systemic herbicide with no residual soil activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid and may be applied through standard equipment after dilution and mixing with water or other carriers 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 are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms.

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. See the WEEDS CONTROLLED sections of this label for specific weed rates.

Always use the higher product application rate in the range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control may result from treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions.

**Mode of Action in Plants:** The active ingredient in this product inhibits production of an enzyme in plants and microorganisms that is essential to formation of specific amino acids.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

**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 weed control.

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

**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 rootstocks of perennials will not be affected by the herbicide and will continue to grow.

**Maximum Application Rates:** The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or as tank mixtures, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. The combined total of all treatments must not exceed 8 quarts of this product (8 pounds of glyphosate acid) per acre per year. See the INGREDIENTS section of this label for necessary product information.

**ATTENTION**

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, 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 AND CROPS.

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 the crop, 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) that 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 crops, or other unintended consequences.

**5.1 Weed Resistance Management**

GROUP	9	HERBICIDE
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Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural or mechanical practices.

To minimize the occurrence of glyphosate-resistant biotypes observe the following general weed management recommendations:

- Scout your application site before and after herbicides applications.
- Control weeds early when they are relatively small.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

- Incorporate other herbicides and cultural or mechanical practices as part of your weed control system where appropriate.
- Use the labeled rate for the most difficult to control weed in the site. Avoid tank-mixtures with other herbicides that reduce this product's efficacy (through antagonism) or with tank mixtures that encourage rates of this product below those specified on this label.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from site to site to minimize spread of weed seed.
- Use new commercial seed as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Monsanto representative, local retailer, or county extension agent.

**5.2 Management Recommendations for Glyphosate Resistant Weed Biotypes**

**NOTE:** Appropriate testing is critical in order to confirm weed resistance to glyphosate. Contact your Monsanto representative to determine if resistance has been confirmed to any particular weed biotype in your area. Directions for the control of biotypes confirmed to be resistant to glyphosate are made available on separately published supplemental labeling or Fact Sheets for this product and may be obtained from your local retailer or Monsanto representative.

Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, Monsanto Company is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

The following good weed management practices are recommended to reduce the spread of confirmed glyphosate resistant biotypes:

- If a naturally occurring resistant biotype is present at your site, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices may also be used as appropriate.
- Scout treated sites after herbicide applications and control escapes of resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving sites known to contain resistant biotypes.

**6.0 MIXING**

Spray solutions of this product can be mixed, stored and applied using only clean stainless steel, 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.**

Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations.

Clean sprayer parts promptly 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.

**6.1 Mixing with Water**

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of clean water. Add the labeled amount of this product near the end of the filling process and mix gently (well). During mixing and application, foaming of the spray solution

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

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.

**6.2 Tank Mixtures**

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mode of action. Always read and follow label directions for all products in the tank mixture.

When this product is tank mixed with other products, refer to these product labels for approved non-crop sites and application rates. 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 precautionary statements for each product in the mixture. Any labeled rate of this product may be used in a tank mix.

When this label recommends a tank mixture with a generic active ingredient such as diuron, 2,4-D or dicamba, the user is responsible for ensuring the mixture product label allows the specific application.

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 label. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

**6.3 Tank Mixing Procedure**

When tank mixing, read and carefully observe label directions, cautionary statements and all information on the labels of all products used. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the recommended amount of this product.

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. Ensure that the specific tank mixture product is registered for application at the desired site.

Refer to the "Tank Mixtures" section for additional precautions.

**6.4 Mixing Percent Solutions**

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

**Spray Solution**

Desired Volume	Amount of [INSERT BRAND NAME]					
	0.5%	0.75%	1%	1.5%	4%	8%
1 gal	2/3 oz	1 oz	1.3 oz	2 oz	5 oz	10 oz
25 gal	1 pt	1.5 pt	1 qt	1.5 qt	4 qt	2 gal
100 gal	2 qt	3 qt	1 gal	1.5 gal	4 gal	8 gal

2 tablespoons = 1 fluid ounce

### III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

For use in backpack, knapsack or pump-up 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.

#### 6.5 Surfactant

This product requires the use of a nonionic surfactant unless otherwise specified. When using this product, unless otherwise specified, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Increasing the rate of surfactant may enhance performance. Examples of when to use the higher surfactant rate include, but are not limited to: hard to control woody brush, trees and vines, high water volumes, adverse environmental conditions, tough to control weeds, weeds under stress, surfactants with less than 70 percent active ingredient, tank mixes, etc.

Always read and follow the manufacturer's surfactant label recommendations for best results. Carefully observe all cautionary statements and other information appearing in the surfactant label.

#### 6.6 Colorants or Dyes

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 dilution. Use colorants or dyes according to the manufacturer's recommendations.

#### 6.7 Drift Reduction Additives

Drift reduction additives may be used with all equipment types, except wiper applicators, and sponge bars. When a drift reduction additive is used, read and carefully observe precautionary statements and all other information appearing on the additive label. The use of drift reduction additives can affect spray coverage which may result in reduced performance.

### 7.0 APPLICATION EQUIPMENT AND TECHNIQUES

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

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

#### SPRAY DRIFT MANAGEMENT

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

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 the crop, plants or other areas on which treatment was not intended.

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 and/or the grower is responsible for considering all these factors when making decisions.

#### 7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

FOR AERIAL APPLICATION IN CALIFORNIA, OR SPECIFIC COUNTIES THEREIN, REFER TO THE FEDERAL SUPPLEMENTAL LABELING FOR AERIAL APPLICATIONS OF THIS PRODUCT IN THAT STATE OR COUNTY FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

*[Optional Statement: This product is recommended for aerial application by helicopter only. Apply the labeled rates of this product in 5 to 30 gallons of water per acre as a broadcast spray. Use the higher spray volumes where weeds, brush and trees are dense or form multiple canopy layers.]*

This product, tank mixed with dicamba, may not be applied by air in California. Only 2,4-D amine formulations may be applied by air in California.

### III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Avoid direct application to any body of water.

Use the labeled rates of this herbicide in 3 to 25 gallons of water per acre.

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

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### **Aircraft Maintenance**

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear is most susceptible.

#### **AERIAL SPRAY DRIFT MANAGEMENT**

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications or to public health uses.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

#### **Importance of 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 the **Wind, Temperature and Humidity**, and **Temperature Inversion** sections of this label).

#### **Controlling Droplet Size**

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

**Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use 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 backwards, parallel to the air stream, will produce larger droplets than other orientations. Significant deflection from the 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 larger droplets than other nozzle types.

**Boom length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

92 of 169

### III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

**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 the exposure of the 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 droplets, etc.).

#### **Wind**

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

#### **Temperature and Humidity**

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

#### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### **Sensitive Areas**

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

#### **7.2 Ground Broadcast Equipment**

For broadcast ground applications, unless otherwise specified in this label or in separate supplemental labeling or Fact Sheets published by Monsanto, use this product at the rate of 1.5 to 3 pints per acre for annual weeds, 3 to 7.5 pints per acre for perennial weeds and 3 to 7.5 pints per acre for woody brush and trees. When used according to label directions this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the "WEEDS CONTROLLED" section of this label.

Use the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified in this label or in separate supplemental labeling or Fact Sheets published by Monsanto. *[Optional statement: Use the labeled rates of this product in 10 to 60 gallons of water per acre as a broadcast spray unless otherwise specified in this label or in separate supplemental labeling or Fact Sheets published by Monsanto.]* As weed density increases, the spray volume should be increased toward the upper end of the specified 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 spray pattern for even distribution of spray droplets.

#### **7.3 Hand-Held Equipment**

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

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. Spray coverage should be uniform and complete. Use coarse sprays only.

For control of weeds listed in the "Annual Weeds" section of "WEEDS CONTROLLED", apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1-percent solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For best results, use a 1.5-percent solution on harder-to-control perennials, woody vines, brush and trees. Make applications to perennials after seedhead emergence in grasses or bud formation in broadleaf weeds, woody brush and trees for best results.

For low volume directed spray applications, use a 4- to 8-percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 to 75 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop.

Unless otherwise specified, use the rates listed in the following table for various methods of foliar application using high volume, backpack, knapsack and similar types of hand-held equipment. When used according to label directions this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the "WEEDS CONTROLLED" section of this label.

**APPLICATION RATES**

APPLICATION SPRAY VOLUME Gallons/Acre

SPRAY TO WET		
Handgun or Backpack	0.5 to 1.5% by volume	spray-to-wet*
LOW VOLUME DIRECTED SPRAY		
Backpack	4 to 8% by volume	15 to 25**
Modified High Volume	1.5 to 3% by volume	40 to 60**

\* For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

\*\* Low volume directed applications with backpacks work best when treating weeds and brush less than 10 feet tall. For taller weeds and brush, high volume handguns can be modified by reducing nozzle size and spray pressure to produce a low volume directed spray.

**7.4 Selective Equipment**

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any aquatic or non-crop site specified on this label.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION, AS SERIOUS INJURY OR DEATH TO DESIRABLE VEGETATION IS LIKELY TO OCCUR.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

**Shielded and Hooded Applicators**

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. USE EXTREME CARE TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

**Wiper Applicators and Sponge Bars**

Wiper applicators are devices that physically wipe this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from the use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended with all wiper applications.

**For Rope or Sponge Wick Applicators--** Solutions ranging from 33 to 75 percent of this product in water may be used.

**For Panel Applicators--**Solutions ranging from 33 to 100 percent of this product in water may be used in panel wiper applicators

**7.5 Injection Systems**

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the undiluted concentrate of other products when using injection systems unless specifically recommended.

**7.6 CDA Equipment**

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 2 to 15 gallons of water per acre.

**For the control of annual weeds with hand-held CDA units —** Apply a 15-percent solution of this product (19.25 oz of product per gallon) at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1 quart per acre). For the control of perennial weeds, apply a 15- to 30-percent

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mile per hour (2 to 4 quarts per acre).

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

**8.0 SITE AND USE INSTRUCTIONS**

Detailed instructions follow alphabetically, by site.

Unless otherwise specified on this label or in separate supplemental labeling or Fact Sheets published by Monsanto, applications may be made to control any weeds listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES". Refer also to the "SELECTIVE EQUIPMENT" section.

**8.1 Aquatic Sites**

This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, nonflowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas.

This product may also be use to control weeds, woody brush and trees in other terrestrial non-crop sites or in aquatic sites associated with these areas. These use areas include airports, apartment complexes, commercial sites, ditch banks, dry ditches, dry canals, fence rows, forestry sites, golf courses, habitat restoration and management areas, industrial sites, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, public areas, parks, parking areas, petroleum tank farms and pumping installations, railroads, recreational areas, residential areas, roadsides, schools, storage areas, substations, utility rights-of-way, utility sites, warehouse areas, and wildlife management areas.

This product may also be used in non-food crop sites such as Christmas tree farms, plant and ornamental nurseries, pastures and rangelands and sold or turf seed farms.

If aquatic sites are present in the non-crop area and are part of the intended treatment, read and observe the following directions:

**This product does not control plants which are completely submerged or have a majority of their foliage under water.**

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult your local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

**NOTE:** Do not apply this product **directly to water** within 0.5 mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 0.5 mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within 0.5 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made **ONLY** in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does **NOT** apply to intermittent inadvertent overspray of water in terrestrial use sites.

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

Floating mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not re-treat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in water. When making any bankside applications, do not overlap more than 1 foot into open water. Do not spray in bodies of water where weeds do not exist. The maximum application rate of 7.5 pints per acre must not be exceeded in any single broadcast application that is being made over water except as follows, where any labeled rate may be applied:

- Stream crossings in utility rights-of-way
- Where applications will result in less than 20 percent of the total water area being treated..

When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in fish kill.

**Tank Mixtures**

Tank mixtures of this product plus 2,4-D amine may be used to increase the spectrum of vegetation controlled in aquatic sites. Use 1.5 to 2 pints of this product plus 1 to 2 quarts of 2,4-D amine (4 pounds active ingredient per gallon, labeled for aquatic sites) for control of annual weeds. Use 3 to 7.5 pints of this product plus 2 to 4 quarts of 2,4-D amine (4 pounds active ingredient per gallon, labeled for aquatic sites) for control or partial control of perennial weeds, woody brush and trees.

When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Mix in the following sequence: Fill sprayer tank one-half full with water, add [INSERT BRAND NAME] herbicide, then 2,4-D amine and finally surfactant. Fill sprayer tank to final volume of water.

**NOTE: DO NOT MIX [INSERT BRAND NAME] HERBICIDE AND 2,4-D AMINE CONCENTRATES WITHOUT WATER CARRIER. DO NOT MIX [INSERT BRAND NAME] HERBICIDE AND 2,4-D AMINE IN BYPASS INJECTOR-TYPE SPRAY EQUIPMENT.**

**8.2 Cut Stump**

Cut stump treatments may be made on any site listed on this label. This product will control many types of woody brush and tree species. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50- to 100-percent solution of this product to the freshly-cut surface **immediately after** cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.


For control of *Ailanthus altissima* (Tree-of-heaven) make a cut stump treatment according to the directions in this section using a spray mixture of 50% [INSERT BRAND NAME] and 10% Arsenal.

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

**8.3 Conifer and Herbaceous Release Sites**

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

This product can be used for conifer release as a broadcast spray for control, partial control or suppression of herbaceous weeds and hardwoods listed in the "WEEDS CONTROLLED" section of this label. Use only where conifers have been established for more than one year unless otherwise stated below. This product may be applied as a directed spray or by using selective equipment in forestry hardwood and conifer sites, including Christmas tree plantations and silvicultural nurseries.

Use a nonionic surfactant that is labeled for use in over-the-top conifer release applicatons. Refer to the surfactant manufacturer's label for surfactant use rates and other precautionary statements. Use of this product without a surfactant will result in reduced herbicide performance.

**APPLICATION MUST BE MADE AFTER FORMATION OF FINAL CONIFER RESTING BUDS IN THE FALL OR PRIOR TO INITIAL BUD SWELLING IN THE SPRING.**

Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied. Damage can be accentuated if applications are made when conifers are actively growing, or are under stress from drought, flood water, improper planting, insects, animal damage or diseases.

**For release of the following conifer species outside the Southeastern United States:**

**Douglas fir, Fir, Hemlock, Pines\*, California Redwood, Spruce**

\*Includes all species except loblolly pine, longleaf pine, shortleaf pine or slash pine.

Use 1.5 to 3 pints of this product per acre as a broadcast spray.

To release Douglas fir, and pine and spruce species at the end of the first growing season (except in California), this product can be used at the lower labeled rates of 1.5 to 2.5 pints per acre. Ensure that the conifers are well hardened off before application. Make sure that the nonionic surfactant has been adequately tested for safety to Douglas fir before use.

For release of Spruce (*Picea spp.*) in Maine, Michigan, Minnesota, New Hampshire and Wisconsin, up to 4.5 pints per acre of this product may be used for the control of difficult woody brush and tree species and application must be made after formation of final conifer resting buds in the fall.

Use of a surfactant is not recommended for release of hemlock species or California redwood. In mix conifer stands injury to these species may result if a surfactant is used.

**For release of the following conifer species in the Southeastern United States:**

**Loblolly pine, Slash pine, Eastern white pine, Virginia pine, Shortleaf pine, Longleaf pine**

Apply 2.25 to 3.75 pints of this product per acre as a broadcast spray during late summer or early fall after the pines have hardened off.

For applications made at the end of the first growing season, use 1.5 pints per acre of this product.

**TANK MIXTURES:** This product may be tank mixed with the following products for conifer or herbaceous release. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements and label uses for each product in the mixture.

When applied as directed, this product plus listed residual herbicides provides postemergence control of the annual weeds and control or suppression of the perennial weeds listed in this label, and residual control of the weeds listed in the residual herbicide label. Use only on conifer species that are labeled for over-the top sprays for both products.

- atrazine
- Arsenal™ Applicator Concentrate
- Oust

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

**Late Summer and Fall after Resting Bud Formation**

For release of jack pine, white pine and white spruce, apply 1.5 to 3 pints of this product plus 1 to 3 ounces of Oust per acre. For white pine tank mix a maximum of 1 to 1.5 ounces of Oust per acre.

For conifer release of Douglas fir, use 1.5 to 2.25 pints of this product plus 2 to 6 ounces of Arsenal Applicator Concentrate per acre. For conifer release of balsam fir and red spruce, apply 3 pints of this product plus 1 to 2.5 ounces of Arsenal Applicator Concentrate per acre.

**Herbaceous Release**

For spring and early summer herbaceous release of loblolly pine, Virginia and longleaf pine apply 12 to 18 fluid ounces of this product with 2 to 4 ounces of Oust.

For early spring release of Douglas fir, prior to bud swell, apply 1.5 pints of this product plus 4 pounds active ingredient of atrazine per acre. Allow one full growing season before application. Do not add surfactant to this treatment.

**8.4 Forestry Site Preparation**

This product is recommended for the control or partial control of woody brush, trees and herbaceous weeds in forestry. This product is also recommended for use in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product is recommended for use in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

For applications using different types of equipment, see "APPLICATION RATES" table in "HAND-HELD EQUIPMENT" section of this label.

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of vegetation controlled in forestry site preparation. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

**NOTE:** For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any labeled rate of this product may be used in a tank mix with the following products for forestry site preparation.

Arsenal Applicators Concentrate	Escort
Chopper	Garlon 3A
Chopper GEN2	Garlon 4
	Oust

For control of herbaceous weeds, use the lower recommended tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.

**Unless otherwise directed on this label or in separately published Monsanto supplemental labeling or Fact Sheet, do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.**

**8.5 General Non-Crop Areas and Industrial Sites**

Use in areas such as airports, apartment complexes, commercial sites, ditch banks, dry ditches, dry canals, fencerows, forestry sites, golf courses, industrial sites, lumber yards, manufacturing sites, office complexes, parks, parking areas, petroleum tank farms and pumping installations, railroads, recreational areas, residential areas, roadsides, sod or turf seed farms, schools, storage areas, substations, utility sties, warehouse areas, and wildlife management areas.

**General weed control, Trim-and-edge and Bare ground**

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

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.

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

TANK MIXTURES: This product may be tank mixed with the following products.

Arsenal	Landmark II
atrazine*	Outrider
Barricade 65WG	Oust
Certainty	Plateau
Crossbow L	Poast
dicamba*	Ronstar 50WP
diuron*	simazine*
Endurance	Surflan AS
Escort XP	Surflan WDG
Gallery 75DF	Telar DF
Garlon 3A	Transline
Garlon 4	Velpar DF
Goal 2XL	Velpar L
Krovar I DF	2,4-D*
Landmark II MP	

\* User is responsible for ensuring that tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

This product plus dicamba tank mixtures may not be applied by air in California. Only 2,4-D amine formulations may be applied by air in California.

**Brush Control Tank Mixtures**

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any labeled rate of this product may be used in a tank mix.

For control of herbaceous weeds, use the lower tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.

**NOTE:** For side trimming treatments, it is recommended that this product be used alone or in tank mixture with Garlon 4.

- Arsenal
- Escort XP
- Garlon 3A\*
- Garlon 4

100 of 169

### III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

\* Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray compatibility problems.

#### **Chemical mowing - Perennials**

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass covers. Use 5 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre. Apply after grasses have greened up to at least 75 percent green color in the spring, or 7 to 10 days after mowing when sufficient regrowth has occurred to provide a desirable height for growth regulation.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

#### **Chemical mowing - Annuals**

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

#### **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.

Apply 6 to 48 fluid ounces of this product per acre. Apply the labeled rates in 10 to 40 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 12 fluid ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixtures of this product plus Oust or Outrider in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for dormant bermudagrass and bahiagrass treatments.

#### **Actively Growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. DO NOT apply more than 12 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus Oust or Outrider in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for actively growing bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

#### **Turfgrass Renovation, Seed, or Sod Production**

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. 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. For warm-season grasses such as bermudagrass, summer or fall applications provide the best control. 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.

10/09/169

### III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

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. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

Do not feed or graze turfgrass grown for seed or sod production for 8 weeks following application.

#### 8.6 Habitat Management

##### Habitat Restoration and Management

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including riparian and estuarine areas, rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

##### Wildlife Food Plots

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

#### 8.7 Hollow Stem Injection

This product may be applied through hand-held injection devices that deliver recommended amounts of this product into targeted hollow-stem plants growing in any aquatic or non-crop site specified on this label. For control of the following hollow-stem plants, follow the use instructions below:

##### Castorbean (*Ricinus communis*)

Inject 4 mL/plant of this product into the lower portion of the main stem.

##### Hemlock, Poison (*Conium maculatum*)

Inject one leaf cane per plant 10 to 12 inches above root crown with 5 mL of a 5% v/v solution of this product.

##### Hogweed, Giant (*Heracleum mantegazzianum*)

Inject one leaf cane per plant 12 inches above root crown with 5 mL of a 5% v/v solution of this product.

##### Horsetail, Field (*Equisetum arvense*)

Inject one segment above the root crown with 0.5 mL/stem of this product. Use a small syringe that calibrates to this rate.

##### Iris, Yellow Flag (*Iris Pseudocorus*)

Cut flower stems with clippers 8 to 9 inches above the root crown. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL/stem of this product is injected into the stem.

##### Knotweed, Bohemian (*Polygonum bohemicum*),

##### Knotweed, Giant (*Polygonum sachalinense*), and

##### Knotweed, Japanese (*Polygonum cuspidatum*)

Inject 5 mL/stem of this product between second and third internode.

##### Reed, Giant (*Arundo donax*)

Inject 6 mL/stem of this product between second and third internode.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

**Thistle, Canada (*Cirsium arvense*)**

Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL/stem of this product is injected into the stem.

**NOTE:** Based on the maximum annual use rate of glyphosate for these non-crop sites, the combined total for all treatments must not exceed 8 quarts of this product per acre. At 5 mL per stem, 8 quarts should treat approximately 1500 stems.

**8.8 Injection and Frill (Woody Brush and Trees)**

This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment that must penetrate into the living tissue. Apply the equivalent of 1 mL of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50- to 100-percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100-percent concentration of this product. For best results, application should be made during periods of active growth and after full leaf expansion.

**8.9 Ornamentals, Plant Nurseries, and Christmas Trees**

**Post-directed, Trim-and-edge**

This product may be used as a post-directed spray around established woody ornamental species such as arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product may also be used to trim and edge around trees, buildings, sidewalks and roads, potted plants and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or bark of established ornamental species.

**Site Preparation**

This product may be used prior to planting any ornamental, nursery or Christmas tree species.

**Wiper Applications**

This product may be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established eucalyptus or poplar trees. See the "Selective Equipment" section of this label for further information about the proper use of wiper applicators.

**Greenhouse/Shadehouse**

This product may be used to control weeds growing in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

**8.10 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, and 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.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to park and recreational areas.

**8.11 Railroads**

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to railroads.

**Bare ground, Ballast and Shoulders, Crossings, and Spot Treatment**

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used, as weeds emerge, to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

TANK MIXTURES: This product may be tank mixed with the following products for ballast, shoulder, spot, bare ground and crossing treatments provided that the specific product is registered for use on such sites.

Arsenal	atrazine*	dicamba*
	Escort XP	Garlon 3A
Garlon 4	Hyvar X	Hyvar X-L
Krovar I DF		Oust XP
Outrider	Sahara DG	simazine*
Spike 80DF	Telar DF	Transline
Velpar DF	Velpar L	2,4-D*

\* Tank mixtures with products containing this active ingredient may be made provided the specific product is registered for this use. User is responsible for ensuring that the mixture product labels allow the specific applications when tank mixing with a generic active ingredient.

**Brush Control**

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 3 to 8 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 0.75- to 1.5-percent solution of this product when using high-volume spray-to-wet applications. Apply a 4- to 8-percent solution of this product when using low volume directed sprays for spot treatment.

TANK MIXTURES: This product may be mixed with the following products for enhanced control of woody brush and trees provided that the specific product is registered for use on such sites.

Arsenal		Escort XP
Garlon 3A	Garlon 4	Telar DF
Krenite		
Tordon K	Tordon 22K	Transline
Vanquish	Velpar DF	Velpar L

Additional instructions are located in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section under "Brush Control Tank Mixtures".

**Bermudagrass Release**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 12 to 36 fluid ounces of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

TANK MIXTURES: This product may be tank mixed with Oust XP. If tank mixed, use no more than 12 to 36 fluid ounces of this product with 1 to 2 ounces of Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Blackberry	Johnsongrass
Bluestem, silver	Poorjoe
Broomsedge	Raspberry
Dallisgrass	Trumpetcreeper
Dewberry	Vaseygrass
Dock, curly	Vervain, blue
Dogfennel	

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may occur.

**8.12 Roadsides**

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to roadsides.

**Shoulder Treatments**

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

**Guardrails and Other Obstacles to Mowing**

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

**Spot Treatment**

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

TANK MIXTURES: This product may be tank mixed with the following products, provided that the specific product is registered for use on such non-crop sites, for shoulder, guardrail, spot and bare ground treatments, provided that the specific tank mixture product is registered for use on such sites. Refer to these product labels and observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

atrazine*	Landmark II MP	Poast
Crossbow L	Landmark MP	Ronstar 50 WSP
dicamba*	Landmark XP	Sahara DG
diuron*		simazine*
	Oust XP	Surflan AS

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

Escort XP	Outrider	Surflan WDG
Endurance	pendimethalin*	Telar DF
Gallery 75 DF	Plateau	Velpar DF
Krova I DF	Plateau DG	Velpar L
		2,4-D*

\* Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use. User is responsible for ensuring the mixture product allows the specific application.

See the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section of this label for general instructions for tank mixing.

**Release of Bermudagrass or Bahiagrass**

**Dormant Applications**

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product may also be tank mixed with Outrider or Oust XP for residual control. Tank mixtures of this product with Oust XP may delay greenup.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4- to 6-leaf stage.

Apply 6 to 48 ounces of this product in a tank mixture with 0.75 to 1.33 ounces Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

TANK MIXTURES: Apply 6 to 48 fluid ounces of this product per acre alone or in a tank mixture with 0.25 to 1 ounce per acre of Oust XP. Apply the labeled rates in 10 to 40 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. To avoid delays in green up and minimize injury, add no more than 1 ounce of Oust XP per acre on bermudagrass and no more than 0.5 ounce of Oust XP per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

**Actively Growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 12 to 36 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

- Bahiagrass                      Johnsongrass
- Bluestem, silver              Trumpetcreeper
- Fescue, tall                      Vaseygrass

This product may be tank mixed with Outrider for control or partial control of Johnsongrass and other weeds listed in the Outrider label. Use 6 to 24 ounces of this product with 0.75 to 1.33 ounces of Outrider. Use the higher rates of both products for control of perennial weeds or annual weeds greater than 6 inches in height.

TANK MIXTURES: This product may be tank-mixed with Oust XP. If tank-mixed, use no more than 12 to 24 fluid ounces of this product with 1 to 2 ounces of Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

106 DE 169

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpetcreeper
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season are not recommended, since severe injury may occur.

**Actively Growing Bahiagrass**

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full greenup or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 2 to 3 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider label in actively growing bahiagrass. Apply 1.5 to 3.5 fluid ounces of this product with 0.75 to 1.33 ounces of Outrider per acre. Use the higher rates for control of perennial weeds or annual weeds greater than 6 inches in height. Use only on well established bahiagrass.

TANK MIXTURES: A tank mixture of this product plus Oust XP may be used. Apply 4 fluid ounces of this product plus 1/4 ounce of Oust XP per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

**8.13 Utility Sites**

In utilities, this product is recommended for use along electrical power, pipeline and telephone rights-of-way, and in other sites associated with these rights-of-way, such as substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities.

This product is also recommended for use in preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way.

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. Any labeled rate of this product may be used in a tank mix.

For control of herbaceous weeds, use the lower tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher rates.

**NOTE:** For side trimming treatments, it is recommended that this product be used alone or in tank mixture with Garlon 4.

Arsenal	atrazine*	dicamba*
diuron*	Endurance™	
Escort XP	Garlon 3A	Garlon 4 <sup>z</sup>
Krovar I DF		Oust XP
Outrider	pendimethalin*	Plateau™
Sahara DG™	simazine*	Surflan AS
Surflan WDG	Telar DF	Transline
Vanquish™	Velpar DF	Velpar L
2,4-D*		Krenite

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

\* Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use. User is responsible for ensuring the mixture product allows the specific application.

Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray compatibility problems.

**Bare Ground and Trim-and-Edge**

This product may be used in utility sites and substations for bare ground, trim-and-edge around objects, 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 a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

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

TANK MIXTURES: This product may be tank mixed with the following products. Refer to the specific product labels for approved sites and application rates. 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 precautionary statements for each product in the mixture.

Arsenal™	Outrider
atrazine*	pendimethalin*
Barricade™ 65WG	Plateau™
Certainty	Crossbow L
dicamba *	Landmark II MP
diuron*	Landmark II
Endurance™	Ronstar™ 50WP
Escort XP	simazine*
Gallery 75DF	Surflan™ AS
Garlon™ 3A	Surflan WDG
Garlon 4	Telar™ DF
Goal 2XL	Transline
	Velpar DF
Krovar™ I DF	Velpar L
	2,4-D*
Oust XP	Poast

\* Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use. User is responsible for ensuring the mixture product label allows the specific application.

**9.0 PASTURE AND RANGELANDS**

**9.1 Pastures**

LABELED GRASSES: Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

TYPES OF APPLICATIONS: Preplant, Preemergence, Pasture Renovation, Spot Treatment, Over-the-Top Wiper Applications Over-the-Top, Postemergent Weed Control (Broadcast Treatments).

**Preplant, Preemergence, Pasture Renovation**

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

This product may be applied prior to planting or emergence of forage grasses. In addition, this product may be used to control perennial pasture species listed on this label prior to re-planting.

If application rates total 4.5 pints per acre or less, no waiting period between treatment and feeding of livestock grazing is required. If the rate is greater than 4.5 pints per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Spot Treatment, Over-the-Top Wiper Applications**

This product may be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals.

For spot treatments or wiper application methods using rates of 4.5 pints per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper application are made using rates above 4.5 pints per acre, no more than 10 percent of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

**Postemergent Weed Control (Broadcast Treatments)**

This product may be used to suppress competitive growth and seed production of annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 9 to 12 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Use of higher application rates will cause stand reductions. Do not apply more than 4.5 pints per acre per year onto pasture grasses except for renovation uses. If replanting is needed due to severe stand reduction, applications must be made at least 30 days prior to planting any grass not listed for treatment in this label.

**9.2 Rangelands**

Postemergence application of this product will control or suppress many annual weeds growing in perennial cool- and warm-season grass rangelands.

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

Apply 9 to 12 fluid ounces of this product per acre to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are possible and recommended, where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 12 fluid ounces of this product per acre at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Controlled burning may be useful in eliminating the thatch layer produced by slowly decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off. Do not use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding of livestock grazing is required.

### III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

#### 10.0 WEEDS CONTROLLED

Always use the higher rate of this product per acre within the labeled 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 application rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 4.5 to 8 quarts per acre for enhanced results.

#### 10.1 Annual Weeds

Apply to actively growing annual grasses and broadleaf weeds.

Allow at least 3 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See "DIRECTIONS FOR USE," "GENERAL INFORMATION" and "MIXING AND APPLICATION INSTRUCTIONS" for labeled uses and specific application instructions.

Use 1.5 pints per acre if weeds are less than 6 inches in height or runner length and 1 to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 0.75- to 1.5-percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

#### WEED SPECIES

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Anoda, spurred  
 Balsamapple\*\*  
 Barley\*  
 Barley, little\*  
 Barnyardgrass\*  
 Bassia, fivehook  
 Bittercress\*  
 Bluegrass, annual\*  
 Bluegrass, bulbous\*  
 Brome, downy\*  
 Brome, Japanese\*  
 Broomsedge  
 Buttercup\*  
 Castorbean  
 Cheatgrass\*  
 Cheeseweed (*Malva parviflora*)  
 Chervil\*  
 Chickweed\*

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

- Cocklebur\*
- Copperleaf, hophornbeam
- Copperleaf, Virginia
- Coreopsis, plains/tickseed\*
- Corn\*
- Crabgrass\*
- Cupgrass, woolly\*
- Dwarf dandelion\*
- Eclipta\*
- Falsedandelion\*
- Falseflax, smallseed\*
- Fiddleneck
- Filaree
- Fleabane, annual\*
- Fleabane, hairy (*Conyza bonariensis*)\*
- Fleabane, rough\*
- Foxtail\*
- Foxtail, Carolina\*
- Geranium, Carolina
- Goatgrass, jointed\*
- Goosegrass
- Groundsel, common\*
- Henbit
- Horseweed/Marestail (*Conyza canadensis*)
- Itchgrass\*
- Johnsongrass, seedling
- Junglerice
- Knotweed
- Kochia
- Lamb's-quarters\*
- Lettuce, prickly\*
- Mannagrass, eastern\*
- Mayweed
- Medusahead\*
- Morningglory (*Ipomoea spp*)
- Mustard, blue\*

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

Mustard, tansy\*  
Mustard, tumble\*  
Mustard, wild\*  
Nightshade, black\*  
Oats  
Panicum, browntop\*  
Panicum, fall\*  
Panicum, Texas\*  
Pennycress, field\*  
Pepperweed, Virginia\*  
Pigweed\*  
Puncturevine  
Purslane, common  
Pusley, Florida  
Ragweed, common\*  
Ragweed, giant  
Rice, red  
Rocket, London\*  
Rocket, Yellow  
Rye\*  
Ryegrass\*  
Sandbur, field\*  
Sesbania, hemp  
Shattercane\*  
Shepherd's-purse\*  
Sicklepod  
Signalgrass, broadleaf\*  
Smartweed, ladythumb\*  
Smartweed, Pennsylvania\*  
Sorghum, grain (milo)\*  
Sowthistle, annual  
Spanishneedles\*\*\*  
Speedwell, Corn\*  
Speedwell, purslane\*  
Sprangletop\*  
Spurge, annual

11/2 of 169

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

- Spurge, prostrate\*
- Spurge, spotted\*
- Spurry, umbrella\*
- Starthistle, yellow
- Stinkgrass\*
- Sunflower\*
- Teaweed / Prickly sida
- Thistle, Russian
- Velvetleaf
- Wheat\*
- Wild oats\*
- Witchgrass\*

\* When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 12 fluid ounces of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

\*\* Apply with hand-held equipment only.

\*\*\* Apply 3 pints of this product per acre

**10.2 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 labeled range.

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 a 4- to 8-percent solution of this product.

Allow 7 or more days after application before tillage. If weeds have been mowed or tilled, do not treat until regrowth has reached the recommended stages. Fall treatments must be applied before a killing frost.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	0.7	1.5
Alligatorweed*	3	1.3
Anise (fennel)	1.5 - 3	1 - 1.5
Bahiagrass	2.3 - 3.75	1.5
Beachgrass, European ( <i>Ammophila arenaria</i> )	-	3.5
Bentgrass*	1	1.5
Bermudagrass	4	1.5
Bermudagrass, water (knotgrass)	1	1.5

113 of 169

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

Bindweed, field	3 - 3.75	1.5
Bluegrass, Kentucky	1.5 - 2.3	0.75
Blueweed, Texas	3- 3.75	1.5
Brackenfern	2.3 - 3	0.75 - 1.0
Bromegrass, smooth	1.5 - 2.3	0.75
Bursage, woolly-leaf	--	1.5
Canarygrass, reed	1.5 - 2.3	0.75
Cattail	2.3 - 3.75	0.75
Clover; red, white	2.3 - 3.75	1.5
Cogongrass	2.3 - 3.75	1.5
Cordgrass	2.3 - 3.75	1.0 - 2.0
Cutgrass, giant	3.0	1.0
Dallisgrass	2.3 - 3.75	1.5
Dandelion	2.3 - 3.75	1.5
Dock, curly	2.3 - 3.75	1.5
Dogbane, hemp	3	1.5
Fescue (except tall)	2.3 - 3.75	1.5
Fescue, tall	2.3	1.0
Guineagrass	2.3	0.75
Hemlock, poison	1.5 - 3	0.75 - 1.5
Horsenettle	2.3 - 3.75	1.5
Horseradish	3	1.5
Iceplant	1.5	1.5
Ivy, German, cape	1.5 - 3	0.75 - 1.5
Jerusalem artichoke	2.3 - 3.75	1.5
Johnsongrass	1.5 - 2.3	0.75
Kikuyugrass	1.5 - 2.3	0.75
Knapweed	3	1.5
Lantana	--	0.75 - 1.0
Lespedeza	2.3 - 3.75	1.5
Loosestrife, purple	2	1.0 - 1.5
Lotus, American	2	0.75
Maidencane	3	0.75
Milkweed, common	2.3	1.5
Muhly, wirestem	1.5 - 2.3	0.75
Mullein, common	2.3 - 3.75	1.5

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

Napiergrass	2.3 - 3.75	1.5
Nightshade, silverleaf	3 - 3.75	1.5
Nutsedge; purple, yellow	2.3	0.75
Orchardgrass	1.5 - 2.3	0.75
Pampasgrass	2.3 - 3.75	1.5
Paragrass	3.0	0.75
Pepperweed, perennial	3	1.5
Phragmites*	2 - 3.75	0.75 - 1.5
Quackgrass	1.5 - 2.3	0.75
Redvine*	1.5	1.5
Reed, giant	3- 3.75	1.5
Ryegrass, perennial	1.5 - 2.3	0.75
Salvinia, giant	3 - 3.75	2.0
Smartweed, swamp	2.3 - 3.75	1.5
Spatterdock	3	0.75
Spurge, leafy*	--	1.5
Starthistle, yellow		1.5
Sweet potato, wild*	--	1.5
Thistle, artichoke	1.5 - 2.3	2.0
Thistle, Canada	1.5 - 2.3	1.5
Timothy	1.5 - 2.3	1.5
Torpedograss*	3 - 3.75	0.75 - 1.5
Trumpetcreeper*	1.5 - 2.3	1.5
Tules, common		1.5
Vaseygrass	2.3 - 3.75	1.5
Velvetgrass	2.3 - 3.75	1.5
Waterhyacinth	2.5 - 3	0.75 - 1.0
Waterlettuce		0.75 - 1.0
Waterprimrose		0.75
Wheatgrass, western	1.5 - 2.3	0.75

\*Partial control

**Alligatorweed** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1.3-percent solution with hand-held equipment to provide partial control of alligatorweed. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

**Beachgrass, European** – Apply an 8-percent solution of this product plus 0.5- to 1.5-percent nonionic surfactant on a low volume spray-to-wet basis. Best results are obtained when applications are made when European beachgrass is actively growing through the boot to the full heading stages of growth.

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

Make applications prior to the loss of more than 50% green leaf color in the fall. Do not treat when weeds are under drought stress. Repeat applications may be necessary.

**Bermudagrass** – Apply 4 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and when seed heads appear.

**Bindweed, field/Silverleaf Nightshade/Texas Blueweed** – Apply 3 to 3.75 quarts of this product per acre as a broadcast spray west of the Mississippi River and 2.3 to 3 quarts of this product per acre east of the Mississippi River. With hand-held equipment, use a 1.5-percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

**Brackenfern** – Apply 2.3 to 3 quarts of this product per acre as a broadcast spray or as a 0.75- to 1-percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Cattail** – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

**Cogongrass**—Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

**Cordgrass**-Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 1- to 2-percent solution with hand-held equipment. Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of debris and silt on the cordgrass plants will reduce performance. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant.

**Cutgrass, giant** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1-percent solution with hand-held equipment to provide partial control of giant cutgrass. Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7 to 10-leaf stage prior to retreatment.

**Dogbane, hemp/Knapweed/Horseradish** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.

**Fescue, tall** – Apply 2.3 quarts of this product per acre as a broadcast spray or as a 1-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.

**Guineagrass** – Apply 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when target plants are actively growing and when most have reached at least the 7-leaf stage of growth.

**Johnsongrass/Bluegrass, Kentucky/Bromegrass, smooth/Canarygrass, reed/Orchardgrass/Ryegrass, perennial/Timothy/Wheatgrass, western** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

**Lantana** – Apply this product as a 0.75- to 1-percent solution with hand-held equipment. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

**Loosestrife, purple** – Apply 2 quarts of this product per acre as a broadcast spray or as a 1- to 1.5-percent solution using hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.

**Lotus, American** – Apply 2 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.

**Maidencane/Paragrass** – Apply 3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7- to 10-leaf stage prior to retreatment.

**Milkweed, common** – Apply 2.3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.

**Nutsedge: purple, yellow** – Apply 2.3 quarts of this product per acre as a broadcast spray, or as a 0.75-percent solution with hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

**Pampasgrass** – Apply a 1.5-percent solution of this product with hand-held equipment when plants are actively growing.

**Phragmites** – For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 3.75 quarts per acre as a broadcast spray or apply a 1.5-percent solution with hand-held equipment. In other areas of the U.S., apply 2 to 3 quarts per acre as a broadcast spray or apply a 0.75-percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

**Quackgrass/Kikuyugrass/Muhly, wirestem** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment when most quackgrass or wirestem muhly is at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Reed, giant/Ice Plant** – For control of giant reed and ice plant, apply a 1.5-percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in late summer to fall.

**Salvinia, giant** - Apply as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70% active ingredient. For broadcast applications, apply 3 to 3.75 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

**Spatterdock** – Apply 3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

**Sweet potato, wild** – Apply this product as a 1.5-percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment.

**Thistle: Canada, artichoke** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2-percent solution as a spray-to-wet application. Apply when target plants are actively growing and are at or beyond the bud stage of growth.

**Torpedograss** – Apply 3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

**Tules, common**—Apply this product as a 1.5-percent solution with hand-held equipment. Apply to actively growing plants at or beyond the seedhead stage of growth. After application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.

**Waterhyacinth**—Apply 2.5 to 3 quarts of this product per acre as a broadcast spray or apply a 0.75- to 1-percent solution with hand-held equipment. Apply when target plants are actively growing and at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher rates when more rapid visual effects are desired.

**Waterlettuce** – For control, apply a 0.75- to 1-percent solution of this product with hand-held equipment to actively growing plants. Use higher rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring applications may require retreatment.

**Waterprimrose** – Apply this product as a 0.75-percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

**Other perennials listed on this label** – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

**10.3 Woody Brush and Trees**

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 4- to 8-percent solution of this product.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
Alder	2.3 - 3	0.75 – 1.2

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

Ash*	1.5 - 3.75	0.75 - 1.5
Aspen, quaking	1.5 - 2.3	0.75 - 1.2
Bearclover (Bearmat)*	1.5 - 3.75	0.75 - 1.5
Beech*	1.5 - 3.75	0.75 - 1.5
Birch	1.5	0.75
Blackberry	2.3 - 3	0.75 - 1.2
Blackgum	1.5 - 3.75	0.75 - 1.5
Bracken	1.5 - 3.75	0.75 - 1.5
Broom; French, Scotch	1.5 - 3.75	1.2 - 1.5
Buckwheat, California*	1.5 - 3	0.75 - 1.5
Cascara*	1.5 - 3.75	0.75 - 1.5
Castorbean	1.5 - 3.75	1.5
Catsclaw*	--	1.2 - 1.5
Ceanothus*	1.5 - 3.75	0.75 - 1.5
Chamise*	1.5 - 3.75	0.75
Cherry; bitter, black, pin	1.5 - 3.75	1 - 1.5
Cottonwood, eastern	1.5 - 3.75	0.75 - 1.5
Coyote brush	2.3 - 3	1.2 - 1.5
Cypress, swamp, bald	1.5 - 3.75	0.75 - 1.5
Deerweed	1.5 - 3.75	0.75 - 1.5
Dewberry	2.3 - 3	0.75 - 1.2
Dogwood*	3 - 3.75	1 - 2
Elderberry	1.5	0.75
Elm*	1.5 - 3.75	0.75 - 1.5
Eucalyptus	--	1.5
Gallberry	1.5 - 3.75	0.75 - 1.5
Gorse*	1.5 - 3.75	0.75 - 1.5
Hackberry, western	1.5 - 3.75	0.75 - 1.5
Hasardia*	1.5 - 3	0.75 - 1.5
Hawthorn	1.5 - 2.3	0.75 - 1.2
Hazel	1.5	0.75
Hickory*	3 - 3.75	1 - 2
Honeysuckle	2.3 - 3	0.75 - 1.2
Hornbeam, American*	1.5 - 3.75	0.75 - 1.5
Huckleberry	1.5 - 3.75	0.75 - 1.5
Ivy, poison	3 - 3.75	1.5

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

Knotweed, Bohemian, Giant and Japanese**	--	--
Kudzu	3	1.5
Locust, black*	1.5 - 3	0.75 - 1.5
Madrone resprouts*	--	1.5
Magnolia, sweetbay	1.5 - 3.75	0.75 - 1.5
Manzanita*	1.5 - 3.75	0.75 - 1.5
Maple, red	1 - 3.75	0.75 - 1.2
Maple, sugar	--	0.75 - 1.2
Maple, vine*	1.5 - 3.75	0.75 - 1.5
Monkey flower*	1.5 - 3	0.75 - 1.5
Oak; black, white*	1.5 - 3	0.75 - 1.5
Oak, poison	3 - 3.75	1.5
Oak, post	2.3 - 3	0.75 - 1.2
Oak; northern, pin	1.5 - 3	0.75 - 1.2
Oak, red		0.75 - 1.2
Oak, Scrub*	1.5 - 3	0.75 - 1.5
Oak; southern red	1.5 - 3.75	1 - 1.5
Orange, Osage	1.5 - 3.75	0.75 - 1.5
Peppertree, Brazilian (Florida holly)*	1.5 - 3.75	1.5
Persimmon*	1.5 - 3.75	0.75 - 1.5
Pine	1.5 - 3.75	0.75 - 1.5
Poplar, yellow*	1.5 - 3.75	0.75 - 1.5
Prunus	1.5 - 3.75	1 - 1.5
Raspberry	2.3 - 3	0.75 - 1.2
Redbud, eastern	1.5 - 3.75	0.75 - 1.5
Redcedar, eastern	1.5 - 3.75	0.75 - 1.5
Rose, multiflora	1.5	0.75
Russian olive*	1.5 - 3.75	0.75 - 1.5
Sage, black	1.5 - 3	0.75
Sage, white*	1.5 - 3	0.75 - 1.5
Sage brush, California	1.5 - 3	0.75
Salmonberry	1.5	0.75
Saltbush		1
Saltcedar**	1.5 - 3.75	0.75 - 1.5

## III. MAIN LABEL FOR INDUSTRIAL, TURF &amp; ORNAMENTAL AND FORESTRY USES

Sassafras*	1.5 - 3.75	0.75 - 1.5
Sea Myrtle		1
Sourwood*	1.5 - 3.75	0.75 - 1.5
Sumac; laurel, poison, smooth, sugarbush, winged*	1.5 - 3	0.75 - 1.5
Sweetgum	1.5 - 2.3	0.75 - 1.5
Swordfern*	1.5 - 3.75	0.75 - 1.5
Tallowtree, Chinese	--	0.75
Tanoak resprouts*	--	1.5
Thimbleberry	1.5	0.75
Tobacco, tree*	1.5 - 3	0.75 - 1.5
Toyon*	-	1.5
Trumpet creeper	1.5 - 2.3	0.75 - 1.2
Vine maple*	1.5 - 3.75	0.75 - 1.5
Virginia creeper	1.5 - 3.75	0.75 - 1.5
Waxmyrtle, southern*	1.5 - 3.75	1.5
Willow	2.3	0.75
Yerbasenta, California*	-	1.5

\* Partial control

\*\* Refer to specific instructions below

**Alder/Blackberry/Dewberry/Honeysuckle/Oak, Post/Raspberry** – For control, apply 2.3 to 3 quarts per acre as a broadcast spray or as a 0.75- to 1.2-percent solution with hand-held equipment.

**Aspen, Quaking/Hawthorn/Trumpet creeper** – For control, apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.2-percent solution with hand-held equipment.

**Birch/Elderberry/Hazel/Salmonberry/Thimbleberry** – For control, apply 1.5 quarts per acre of this product as a broadcast spray or as a 0.75-percent solution with hand-held equipment.

**Broom: French, Scotch** – For control, apply a 1.2- to 1.5-percent solution with hand-held equipment.

**Buckwheat, California/Hasardia/Monkey Flower/ Tobacco, Tree** – For partial control of these species, apply a 0.75- to 1.5-percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Castor bean** - For control, apply a 1.5-percent solution of this product with hand-held equipment.

**Catsclaw** – For partial control, apply a 1.2- to 1.5-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Cherry: Bitter, Black, Pin/Oak, Southern Red/Sweet Gum/Prunus** – For control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast spray or as a 1- to 1.5-percent solution with hand-held equipment.

**Coyote brush** – For control, apply a 1.2- to 1.5-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Dogwood/Hickory** – For partial control, apply a 1- to 2-percent solution of this product with hand-held equipment or 3 to 3.75 quarts per acre as a broadcast spray.

### III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

**Eucalyptus, bluegum** – For control of eucalyptus resprouts, apply a 1.5-percent solution of this product with hand-held equipment when resprouts are 6- to 12-feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought-stressed plants.

**Knotweed, Bohemian, Giant and Japanese (*Polygonum bohemicum*, *P. sachalinense* and *P. cuspidatum*)**

**Stem Injection.** See the Hollow Stem Injection Section of this label.

**Cut Stem.** Cut stems cleanly just below the 2<sup>nd</sup> or 3<sup>rd</sup> node above the ground. Immediately apply 0.36 fluid ounce (10 mLs) of a 50-percent solution of this product into the 'well' or remaining internode. Ensure that removed upper plant material is carefully gathered and discarded so that it will not contact soil and regenerate plants from sprouting buds. Use of a bio-barrier such as cardboard, plywood or plastic sheeting is recommended.

The combined total for all treatments must not exceed 8 quarts per acre. At 10mL of a 50-percent solution, approximately 1500 stems per acre may be treated.

**Kudzu** – For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Maple, Red** – For control, apply as a 0.75- to 1.2-percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 1 to 3.75 quarts of this product per acre as a broadcast spray.

**Maple, Sugar/Oak: Northern Pin, Red** – For control, apply as a 0.75- to 1.2-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Peppertree, Brazilian (Holly, Florida)/Waxmyrtle, southern** – For partial control, apply this product as a 1.5-percent solution with hand-held equipment.

**Poison Ivy/Poison Oak** – For control, apply 3 to 3.75 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora** – For control, apply 1.5 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese** – For control of these species, apply a 0.75-percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Saltbush, Sea myrtle**—For control, apply this product as a 1-percent solution with hand-held equipment.

**Saltcedar** - For partial control, apply a 1- to 2-percent solution of this product with hand-held equipment or 3 to 3.75 quarts per acre as a broadcast spray. For control, apply a 1- to 2-percent solution of this product mixed with 0.25-percent Arsenal with hand-held equipment. For control using broadcast applications, apply 1.5 quarts of this product in a tankmix with 1 pint of Arsenal to plants less than 6 feet tall. To control saltcedar greater than 6 feet tall using broadcast applications, apply 3 quarts of this product in a tankmix with 2 pints of Arsenal.

**Willow** – For control, apply 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment.

**Other woody brush and trees listed in this label** – For partial control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment.

#### 11.0 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

122 of 169

III. MAIN LABEL FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES

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.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the fullest extent permitted by law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

[INSERT BRAND NAME], Certainty, Outrider, Monsanto and Vine symbol are trademarks of Monsanto Technology LLC. All others are the property of their respective owners

No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-343

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In case of an emergency involving this product, or for medical assistance,

Call Collect, day or night, (314) 694-4000.

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©[DATE] MONSANTO COMPANY  
800 N. Lindbergh Blvd.  
St. Louis, Missouri, 63167 U.S.A.

IV. SUPPLEMENTAL LABELING FOR INDUSTRIAL, TURF & ORNAMENTAL AND FORESTRY USES
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Table of Contents: Industrial, Turf & Ornamental, and Forestry Uses Supplemental labeling

	Name	Approval Date
A	<b>[INSERT BRAND NAME]</b> HERBICIDE AND TANK MIXTURES FOR NON-CROP AREAS, INCLUDING RAILROAD RIGHTS-OF-WAY, SUBSTATIONS, AIRPORTS, INDUSTRIAL PLANTS, ROADSIDES, STORAGE AREAS AND SIMILAR SITES	10-Nov-2003
B	<b>[INSERT BRAND NAME]</b> FOR AERIAL APPLIACATION IN CALIFORNIA ONLY (Including Fresno County, CA)	10-Nov-2003
C	FOR CONTROL OF CORDGRASS ( <i>Spartina spp.</i> )	05-Dec-2007
D	FOR CONTROL OF GIANT SALVINIA	7- Feb-2008
E	FOR CONTROL OF EUROPEAN BEACHGRASS ( <i>Ammophila arenaria</i> ) IN CALIFORNIA	2-April-2008

IV. SUPPLEMENTAL LABELING FOR INDUSTRIAL TURF & ORNAMENTAL, AND FORESTRY USES

**SUPPLEMENTAL LABELING**

READ THE ENTIRE LABEL FOR **[INSERT BRAND NAME]** BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

When using **[INSERT BRAND NAME]** as permitted according to this supplemental labeling, read and follow all applicable directions, restrictions, and precautions on the label booklet provided with the pesticide container and on this supplemental labeling. This supplemental labeling must be in the possession of the user at the time of pesticide application.

**[INSERT BRAND NAME]** Herbicide

EPA Reg. No. 524-343

Keep out of reach of children.

**CAUTION!**

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

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**[INSERT BRAND NAME]** is a trademark of Monsanto Technology LLC.

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**DIRECTIONS FOR USE**

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

This labeling must be in the possession of the user at the time of herbicide application.

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

See "GENERAL INFORMATION" and "MIXING" sections of the label booklet for **[INSERT BRAND NAME]** for essential product performance information.

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***[INSERT SUPPLEMENTAL DIRECTIONS FOR USE HERE]***

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**Read the "Limit of Warranty and Liability" in the label booklet for **[INSERT BRAND NAME]** before using. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.**

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St. Louis, Missouri, 63167 U.S.A.

[Print Plate] [Approval date]

IV. SUPPLEMENTAL LABELING FOR INDUSTRIAL TURF & ORNAMENTAL, AND FORESTRY USES

**A. [INSERT BRAND NAME] HERBICIDE AND TANK MIXTURES FOR NON-CROP AREAS, INCLUDING RAILROAD RIGHTS-OF-WAY, SUBSTATIONS, AIRPORTS, INDUSTRIAL PLANTS, ROADSIDES, STORAGE AREAS AND SIMILAR SITES**

**DIRECTIONS FOR USE**

Do not allow spray mixtures of this herbicide to mist, drip, drift or splash onto desirable vegetation since injury or destruction may occur. Do not apply when wind or other conditions favor drift.

See the "WEEDS CONTROLLED" section of the [INSERT BRAND NAME] label booklet for rate recommendations. For difficult to control species, where dense stands occur, or where conditions for control are not ideal, 4 to 8 quarts per acre of this product may be used for improved results.

**TANK MIXTURES**

This product provides control of the emerged weeds listed in the label booklet. When applied as a tank mixture, the following herbicides will provide preemergence and/or postemergence control of the weeds listed in the individual product labels.

This product may be tank mixed with the following products. Any labeled rate of this product may be used in a tank mixture with these products. User is responsible for ensuring that the specific product is registered for use on the target site. Refer to these product labels for approved application sites and application rates. Read and carefully observe the cautionary statements and all other information on the labels of all the herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

<u>Tank-mix Product</u>	<u>Rate per Acre</u>
Arsenal™	0.5 to 4 pints
Banvel	1 to 4 pints
2,4-D	0.5 to 1 pound
Garlon™ 3A	1 to 6 pints
Garlon 4	1 to 6 pints
diuron	4 to 8 pounds
diuron + 2,4-D	4 to 8 pounds + 0.5 to 1 pound
diuron + Garlon 3A	4 to 10 pounds + 1 to 2 pints
diuron + Garlon 4	4 to 10 pounds + 1 to 2 pints
Hyvar™ X	4 to 8 pounds
Hyvar X + 2,4-D	4 to 8 pounds + 0.5 to 1 pound
Hyvar X + Garlon 3A	4 to 8 pounds + 1 to 2 pints
Hyvar X + Garlon 4	4 to 8 pounds + 1 to 2 pints
Krovar™ I DF	4 to 6 pounds
Krovar I DF + 2,4-D	4 to 6 pounds + 0.5 to 1 pound
Krovar I DF + Garlon 3A	4 to 6 pounds + 1 to 2 pints
Krovar I DF + Garlon 4	4 to 6 pounds + 1 to 2 pints
Oust™	2 to 6 ounces
Oust + 2,4-D	2 to 6 ounces + 0.5 to 1 pound

## IV. SUPPLEMENTAL LABELING FOR INDUSTRIAL TURF &amp; ORNAMENTAL, AND FORESTRY USES

Oust + Garlon 3A	2 to 6 ounces + 1 to 2 pints
Oust + Garlon 4	2 to 6 ounces + 1 to 2 pints
Spike™ 80W	2 to 5 pounds
Spike 80W + 2,4-D	2 to 5 pounds + 0.5 to 1 pound
Spike 80W + Garlon 3A	2 to 5 pounds + 1 to 2 pints
Spike 80W + Garlon 4	2 to 5 pounds + 1 to 2 pints

Refer to the individual product labels for specific non-crop sites, rates, carrier volumes and precautionary statements.

Maintain good agitation at all times during the mixing process. Ensure that the tank-mix products are well mixed with the spray solution before adding this product.

Mix only the quantity of spray solution that can be used during the same day. Tank mixtures allowed to stand overnight may result in reduced weed control.

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.

When used in combination as recommended by Monsanto Company, the liability of Monsanto shall in no manner extend to any damage, loss or injury not solely and directly caused by the inclusion of the Monsanto product in such combination use.

Read "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for **[INSERT BRAND NAME]** before using this product. Those terms apply to this supplemental labeling and, if those terms are not acceptable, return the product unopened at once.

<b>B. FOR AERIAL APPLIACATION IN CALIFORNIA ONLY (Including Fresno County, CA)</b>
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When applied as directed under the conditions described, this product controls annual and perennial weeds and woody brush and trees listed in the **[INSERT BRAND NAME]** label booklet. See the "WEEDS CONTROLLED" section of the label booklet for rate recommendations.

#### **AQUATIC AND OTHER SITES**

Do not spray open bodies of water where woody brush, trees and herbaceous weeds do not exist. The maximum application rate of 7½ pints per acre must not be exceeded in a single over-water broadcast application except as follows, where any labeled rate may be applied:

- Stream crossings in utility rights-of-way
- Where applications will result in less than 20 percent of the total water area being treated.

Aerial applications of this product are allowed in the following situations:

1. Forestry sites
2. Prior to the emergence or transplanting of labeled crops
3. Aid to burning for establishment and maintenance of fuel breaks
4. Establishing fire perimeters and black lines
5. Aid to prescribed burning
6. Along fire roads
7. Range conversion
8. Habitat restoration and management

IV. SUPPLEMENTAL LABELING FOR INDUSTRIAL TURF & ORNAMENTAL, AND FORESTRY USES

- 9. Wildlife food plots
- 10. Chaparral areas

**AERIAL APPLICATIONS**

Aerial applications may be made with helicopters only and only in non-residential areas.

AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

- 1. Do not apply within 100 feet of any desirable vegetation or crop(s).
- 2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within a minimum of 500 feet of the desirable vegetation or crop(s).
- 3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
- 4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.
- 5. APPLY BY AIR ONLY TO NONRESIDENTIAL AREAS.

**FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY (From February 15 through March 31 Only)**

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**Applicable Area**

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This section of the supplement only applies to the area contained inside the following boundaries within Fresno County, California.

- North: Fresno County line
- South: Fresno County line
- East: State Highway 99
- West: Fresno County line

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**General Information**

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Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

**Written Recommendations**

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's product label and this label have been satisfied.

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**Aerial Applicator Training and Equipment**

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Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a

## IV. SUPPLEMENTAL LABELING FOR INDUSTRIAL TURF &amp; ORNAMENTAL, AND FORESTRY USES

Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

**Applications at Night** -Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

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To report known or suspected misuse of this product, call 1-800-332-3111.

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For additional information on the proper aerial application of this product, call 916-784-1718.

<b>C. For Control of Cordgrass (<i>Spartina</i> spp.)</b>
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#### Directions for Use

The presence of debris and silt on the surface of cordgrass plants will reduce product performance. It may be necessary to wash targeted plants prior to application to improve herbicide uptake. Where cordgrass has been cut or mowed prior to application, allow significant regrowth before application to ensure adequate interception and uptake of the herbicide solution. Rainfall within 2 hours or immersion within 4 hours after application may reduce effectiveness.

Prior to application, survey the areas to be treated to determine if shellfish beds exist within the intended treatment area. Wait either until shellfish have been harvested before application is made or do not harvest shellfish for 14 days following treatment.

Add 1 to 2 quarts or more of nonionic surfactant or other adjuvant approved for use on aquatic sites and compatible with this product per 100 gallons of spray solution for broadcast applications (ground or air) and when using optical sensing application equipment.

Do not apply this product through any type of irrigation system

#### APPLICATION

Under ideal application conditions, that is, where silt and debris are not present on plant surfaces, good spray coverage is achievable, target plants are actively growing and labeled rates and application volumes are used, allow at least 4 hours drying time before plants are covered by tidewater. Where one or more of these conditions are not met, schedule applications to allow at least 5 hours drying time before plants are covered by tidewater. Do not apply when wind speed at the application site exceed 10 miles per hour.

**Broadcast Application (Ground):** Apply 2 to 8 quarts of this herbicide in 5 to 100 gallons of spray solution per acre. For best results, complete coverage of cordgrass clumps is required.

**Broadcast Application (Ground/Optical Sensing Application Equipment):** Apply to 2 8 quarts of this product in 5 to 100 gallons of spray solution per acre using equipment designed and calibrated to deliver spray solution only when cordgrass plants are present and detected by optical sensors. For best results, complete coverage of cordgrass clumps is required.

**Hand-Held Back-Pack or High Volume Equipment:** Apply a 5 to 8 percent solution of this product. Ensure that complete coverage of cordgrass clumps is achieved. Do not spray to the point of run-off.

**Broadcast Application (Air):** Apply 2 to 8 quarts of this product in 5 to 10 gallons of spray solution per acre. Maintain at least a 50-foot buffer between commercial shellfish beds and treated areas. The potential for spray drift is dependent upon weather- and equipment-related factors. The applicator must be familiar with local wind patterns and monitor and record temperature and wind speed prior to and periodically during application. Schedule application in order to allow at least 5 hours before treated

## IV. SUPPLEMENTAL LABELING FOR INDUSTRIAL TURF &amp; ORNAMENTAL, AND FORESTRY USES

plants are covered by tidewater.

**D. For Control of Giant Salvinia****RECOMMENDATIONS**

For control of giant salvinia, this product may be applied as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70% active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 3 to 3.75 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

**E. FOR CONTROL OF EUROPEAN BEACHGRASS (*Ammophila arenaria*) IN CALIFORNIA.****RECOMMENDATIONS**

Best results are obtained when applications are made when European beachgrass is actively growing through the boot to the full heading stages of growth. Applications should be made prior to the loss of more than 50 percent green leaf color in the fall.

Applications made during any period of plant (drought) stress, or beyond the recommended active growth period in the fall, will likely result in reduced performance.

Repeat applications of AquaMaster herbicide may be necessary to treat skips. Monitor treated areas prior to reseeding of desirable vegetation.

**SPRAY TO WET APPLICATIONS**

Apply an 8-percent solution of this product plus 0.5 to 1.5 percent nonionic surfactant on a spray-to-wet basis for control of European beachgrass. Spray coverage should be uniform and complete but not to the point of runoff.

**WIPER APPLCIATIONS**

For selective control of European beachgrass, apply a 33.3-percent solution of this product plus 1 to 2.5 percent nonionic surfactant during active growth. Avoid contact of herbicide solution with desirable vegetation. Wiping the plants in opposite directions may improve performance. Maximizing the amount of individual leaf tissue contacted with the wiping equipment will result in optimal performance.

**V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES**

Note: Part V. "MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES" of this Master Label consists only of approved use-sites that are outside the scope of the Worker Protection Standard (WPS), 40 CFR part 170. No WPS Agricultural Use Requirements or Non-Agricultural Use Requirements boxes are required for these uses, and no WPS boxes will be included on any final printed labeling for products under this registration that are limited solely to these Part V. use-sites.

**[INSERT BRAND NAME]**

Herbicide by Monsanto

**Complete Directions for Use in Aquatic and Other Non-crop Sites.**

EPA Reg. No. 524-343

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

**[INSERT BRAND NAME]** is a trademark of Monsanto Technology LLC.

Read the entire label before using this product.

Use only according to label instructions.

Not all products recommended on this label are registered for use in California. Check the registration status of each product in California before using.

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). SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

*[Alternate Container language: Refillable Container Label Statement]*

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. REPACKAGING OF THIS PRODUCT FOR DISTRIBUTION OR SALE MAY BE CONDUCTED ONLY UNDER THE TERMS OF A WRITTEN CONTRACT WITH A MONSANTO.

*[Alternate Container language: Non-refillable Container Label Statement]*

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

**CONTENTS**

**PRODUCT INFORMATION**

- 1 1.0 INGREDIENTS**
- 2 2.0 IMPORTANT PHONE NUMBERS**
- 3 3.0 PRECAUTIONARY STATEMENTS**
  - 3.1 Hazards to Humans and Domestic Animals
  - 3.2 Environmental Hazards
  - 3.3 Physical or Chemical Hazards

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**DIRECTIONS FOR USE**

**4 4.0 STORAGE AND DISPOSAL**

**5 5.0 GENERAL INFORMATION  
(How This Product Works)**

**6 6.0 MIXING**

- 6.1 Mixing with Water
- 6.2 Tank Mixtures
- 6.3 Tank Mixing Procedure
- 6.4 Mixing Percent Solutions
- 6.5 Surtactant
- 6.6 Colorants or Dyes
- 6.7 Drift Reduction Additives

**7 7.0 APPLICATION EQUIPMENT AND TECHNIQUES**

- 7.1 Aerial Equipment
- 7.2 Ground Broadcast Equipment
- 7.3 Hand-Held Equipment
- 7.4 Selective Equipment

**8 8.0 SITE AND USE INSTRUCTIONS**

- 8.1 Aquatic Sites
- 8.2 Cut Stump
- 8.3 General Non-crop Areas and Industrial Sites
- 8.4 Habitat Management
- 8.5 Injection and Frill (Woody Brush and Trees)
- 8.6 Roadsides

**9 9.0 WEEDS CONTROLLED**

- 9.1 Annual Weeds
- 9.2 Perennial Weeds
- 9.3 Woody Brush and Trees

**10 10.0 LIMIT OF WARRANTY AND LIABILITY**

**PRODUCT INFORMATION**

**1.0 INGREDIENTS**

**ACTIVE INGREDIENT:**

\*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt ..... 53.8%

**OTHER INGREDIENTS:** ..... 46.2%

100.0%

132 of 169

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

\*Contains 648 grams per liter or 5.4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per liter or 4.0 pounds per U.S. gallon of the acid, glyphosate.

No license granted under any non-U.S. patent(s).

**2.0 IMPORTANT PHONE NUMBERS**

FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT,

CALL TOLL-FREE,

1-800-332-3111.

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!**

Remove contaminated clothing and wash clothing before reuse.

Wash thoroughly with soap and water after handling.

**3.2 Environmental Hazards**

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

In case of: SPILL or LEAK, soak up and remove to a landfill.

**3.3 Physical or Chemical Hazards**

Spray solutions of this product should be mixed, stored and applied using only stainless steel, 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.

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**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental Labeling. Supplemental labeling can be found on the [www.cdms.net](http://www.cdms.net) or [www.greenbook.net](http://www.greenbook.net) websites or obtained by contacting your Authorized Monsanto Retailer or Monsanto Company representative. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

**4.0 STORAGE AND DISPOSAL**

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal.

**PESTICIDE STORAGE:** STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.

*[Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

**CONTAINER HANDLING AND DISPOSAL:** See container label for container handling and disposal instructions and refilling limitations.

*[CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS]*

*[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY]*

Nonrefillable container. Do not reuse or refill this container.

*[Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

*[Alternate container disposal statement:* Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

*[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY]*

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[Alternate container statement: Nonrefillable container. Do not reuse or refill this container.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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. 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.

Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[Alternate container disposal statement: Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER CONTAINERS OF GREATER THAN 5-GALLON CAPACITY]

Nonrefillable container. Do not reuse or refill this container.

[Alternate container statement: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one 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 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. 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.

Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-768-6387.]

[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT CONTAINERS]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available. To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-768-6387.

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Contact 1-800-768-6387.]

[CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT CONTAINERS AS DEFINED IN 40 CFR 156.3]

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

5.0 GENERAL INFORMATION

(How This Product Works)

**Product Description:** This product is a postemergence, systemic herbicide with no residual soil activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid and may be applied through standard equipment after dilution and mixing with water or other carriers 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 are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms.

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the "WEEDS CONTROLLED" sections for specific weed recommendations. Always use the higher product application rate in the labeled range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control may result from treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**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.

**Mode of Action in Plants:** The active ingredient in this product inhibits production of an enzyme in plants and microorganisms that is essential to formation of specific amino acids.

**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 rootstocks of perennials will not be affected by the herbicide and will continue to grow.

**Maximum Application Rates:** The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or as tank mixtures, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. The combined total of all treatments must not exceed 8 quarts of this product (8 pounds of glyphosate acid) per acre per year. See the "INGREDIENTS" section of this label for necessary product information.

**ATTENTION**

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, 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 AND CROPS.

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 the crop, 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) that 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 crops, or other unintended consequences.

**5.1 Weed Resistance Management**



Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural or mechanical practices.

To minimize the occurrence of glyphosate-resistant biotypes observe the following general weed management recommendations:

- Scout your application site before and after herbicides applications.
- Control weeds early when they are relatively small.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

- Incorporate other herbicides and cultural or mechanical practices as part of your weed control system where appropriate.
- Use the labeled rate for the most difficult weed in the site. Avoid tank-mixtures with other herbicides that reduce this product's efficacy (through antagonism) or with tank mixture that encourage rates of this product below those specified on this label.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from site to site to minimize spread of weed seed.
- Use new commercial seed as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Monsanto representative, local retailer, or county extension agent.

**5.2 Management Recommendations for Glyphosate-Resistant Weed Biotypes**

NOTE: Appropriate testing is critical in order to confirm weed resistance to glyphosate. Contact your Monsanto representative to determine if resistance in any particular weed biotype in your area has been confirmed. Control recommendations for biotypes confirmed as resistant to glyphosate are made available on separately published supplemental labeling or Fact Sheets for this product and may be obtained from your local retailer or Monsanto representative.

Since the occurrence of new glyphosate-resistant weeds cannot be determined until after product use and scientific confirmation, Monsanto Company is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

The following good weed management practices are recommended to reduce the spread of confirmed glyphosate-resistant biotypes:

- If a naturally occurring resistant biotype is present at your site, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices may also be used as appropriate.
- Scout treated sites after herbicide applications and control weed escapes of resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving sites known to contain resistant biotypes.

**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.

**6.1 Mixing with Water**

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the labeled amount of this product near the end of the filling process and mix well. 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.

**6.2 Tank Mixtures**

When this product is tank mixed with other products, refer to the tank mix product labels for approved non-crop sites and application rates. 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

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

precautionary statements for each product in the mixture. Any labeled rate of this product may be used in a tank mix.

When this label recommends a tank mixture with a generic active ingredient such as diuron, 2,4-D, or dicamba, the user is responsible for ensuring the mixture product label allows the specific application.

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 label. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

**6.3 Tank Mixing Procedure**

When tank mixing, read and carefully observe label directions, cautionary statements and all information on the labels of all products used. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the labeled amount of this product.

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. Ensure that the specific tank mixture product is registered for application at the desired site.

Refer to the "Tank Mixtures" section for additional precautions.

**6.4 Mixing Percent Solutions**

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

**Spray Solution**

Desired Volume	Amount of [INSERT BRAND NAME]					
	0.5%	0.75%	1%	1.5%	4%	8%
1 gal	2/3 oz	1 oz	1.3 oz	2 oz	5 oz	10 oz
25 gal	1 pt	1.5 pt	1 qt	1.5 qt	4 qt	2 gal
100 gal	2 qt	3 qt	1 gal	1.5 gal	4 gal	8 gal

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-up sprayers, it is suggested that the amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

**6.5 Surfactant**

This product requires the use of a nonionic surfactant unless otherwise specified. When using this product, unless otherwise specified, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Increasing the rate of surfactant may enhance performance. Examples of when to use the higher surfactant rate include, but are not limited to: hard to control woody brush, trees and vines, high water volumes, adverse environmental conditions, tough to control weeds, weeds under stress, surfactants with less than 70 percent active ingredient, tank mixes, etc. These surfactants should not be used in excess of 1 quart per acre when making broadcast applications. Always read and follow the manufacturer's surfactant label recommendations for best results. Carefully observe all cautionary statements and other information appearing in the surfactant label.

**6.6 Colorants or Dyes**

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

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 dilution. Use colorants or dyes according to the manufacturer's recommendations.

**6.7 Drift Reduction Additives**

Drift reduction additives may be used with all equipment types, except wiper applicators, and sponge bars. When a drift reduction additive is used, read and carefully observe the precautionary statements and all other information appearing on the additive label. The use of drift reduction additives can affect spray coverage which may result in reduced performance.

**7.0 APPLICATION EQUIPMENT AND TECHNIQUES**

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

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

**SPRAY DRIFT MANAGEMENT**

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

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 the crop, plants or other areas on which treatment was not intended.

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 and the grower are is responsible for considering all these factors when making decisions.

**7.1 Aerial Equipment**

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABELING FOR AERIAL APPLICATIONS IN THAT STATE OR COUNTY FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product, when tank-mixed with dicamba, may not be applied by air in California. Only 2,4-D amine formulations may be applied by air in California.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Avoid direct application to any body of water.

Use the labeled rates of this herbicide in 3 to 25 gallons of water per acre.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

**AERIAL SPRAY DRIFT MANAGEMENT**

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to public health uses.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

**Importance of Droplet Size**

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

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 the “Wind, Temperature and Humidity”, and “Temperature Inversion” sections of this label).

**Controlling Droplet Size**

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use 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 backwards, parallel to the air stream, will produce larger droplets than other orientations. Significant deflection from the 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 larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 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 the exposure of the 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 droplets, etc.).

**Wind**

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

**Temperature and Humidity**

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

**Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas**

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

**Aircraft Maintenance**

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear is most susceptible.

**7.2 Ground Broadcast Equipment**

For broadcast ground applications, unless otherwise specified in this label or in separate supplemental labeling or Fact Sheets published by Monsanto, use this product at the rate of 1.5 to 3 pints per acre for annual weeds, 3 to 7.5 pints per acre for perennial weeds and 3 to 7.5 pints per acre for woody brush and trees. When used according to label directions this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the "WEEDS CONTROLLED" section of this label.

Use the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. [*Optional statement: Use the labeled rates of this product in 10 to 60 gallons of water per acre as a broadcast spray unless otherwise specified.*] As density of weeds increases, spray volume should be increased within the labeled 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 spray pattern for even distribution of spray droplets.

**7.3 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 "WEEDS CONTROLLED", apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1-percent solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For best results, use a 1.5-percent solution on harder-to-control perennials, woody vines, brush and trees. Make applications to perennials after seedhead emergence in grasses or bud formation in broadleaf weeds, woody brush and trees for best results.

For low volume directed spray applications, use a 4- to 8-percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 to 75 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop.

Unless otherwise specified, use the rates listed in the following "APPLICATION RATES" table for various methods of foliar application using high volume, backpack, knapsack and similar types of hand-held equipment. When used according to label directions this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the "WEEDS CONTROLLED" section of this label.

**APPLICATION RATES**

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

APPLICATION	[INSERT BRAND NAME]	SPRAY VOLUME GALLONS/ACRE
<u>SPRAY-TO-WET</u>		
Handgun, or Backpack	0.5 to 1.5% by volume	spray-to-wet*
<u>LOW VOLUME DIRECTED SPRAY</u>		
Backpack	4 to 8% by volume	15 to 25**
Modified High Volume	1.5 to 3% by volume	40 to 60**

\* For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

\*\* Low volume directed applications with backpacks work best when treating weeds and brush less than 10 feet tall. For taller weeds and brush, high volume handguns can be modified by reducing nozzle size and spray pressure to produce a low volume directed spray.

**7.4 Selective Equipment**

This product may be applied through shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any aquatic or non-crop site specified on this label.

**AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION, AS SERIOUS INJURY OR DEATH IS LIKELY TO OCCUR.**

Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

**Shielded and Hooded Applicators**

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

**Wiper Applicators and Sponge Bars**

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from the use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended with all wiper applications.

**For Rope or Sponge Wick Applicators** – Solutions ranging from 33 to 75 percent of this product in water may be used.

**For Panel Applicators** – Solutions ranging from 33 to 100 percent of this product in water may be used in panel wiper applicators

### 8.0 SITE AND USE INSTRUCTIONS

Unless otherwise specified, applications may be made to control any weeds listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES". Refer also to the "SELECTIVE EQUIPMENT" section.

#### 8.1 Aquatic Sites

This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, nonflowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas. .

This product may also be use to control the labeled weeds, woody brush and trees growing in other terrestrial non-crop sites listed on this label or in aquatic sites within these areas.

If aquatic sites are present in a non-crop area and are part of the intended treatment, read and observe the following directions:

**This product does not control plants which are completely submerged or have a majority of their foliage under water.**

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

**NOTE:** Do not apply this product **directly to water** within 0.5 mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 0.5 mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within 0.5 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made **ONLY** in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does **NOT** apply to intermittent inadvertent overspray of water in terrestrial use sites.

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds.

Floating mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not re-treat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in water. When making any bankside applications, do not overlap more

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

than 1 foot into open water. Do not spray in bodies of water where weeds do not exist. The maximum application rate of 7.5 pints per acre must not be exceeded in any single broadcast application that is being made over water except as follows, where any labeled rate may be applied:

- Stream crossings in utility rights-of-way
- Where applications will result in less than 20 percent of the total water area being treated..

When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in fish kill.

### Tank Mixtures

Tank mixtures of this product plus 2,4-D amine may be used to increase the spectrum of vegetation controlled in aquatic sites. Use 1.5 to 2 pints of this product plus 1 to 2 quarts of 2,4-D amine (4 pounds active ingredient per gallon, labeled for aquatic sites) for control of annual weeds. Use 3 to 7.5 pints of this product plus 2 to 4 quarts of 2,4-D amine (4 pounds active ingredient per gallon, labeled for aquatic sites) for control or partial control of perennial weeds, woody brush and trees.

When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Mix in the following sequence: Fill sprayer tank one-half full with water, add [INSERT BRAND NAME] herbicide, then 2,4-D amine and finally surfactant. Fill sprayer tank to final volume of water.

**NOTE: DO NOT MIX [INSERT BRAND NAME] HERBICIDE AND 2,4-D AMINE CONCENTRATES WITHOUT WATER CARRIER. DO NOT MIX [INSERT BRAND NAME] HERBICIDE AND 2,4-D AMINE IN BYPASS INJECTOR-TYPE SPRAY EQUIPMENT.**

### For Control of Cordgrass (*Spartina* spp.)

The presence of debris and silt on the surface of cordgrass plants will reduce product performance. It may be necessary to wash targeted plants prior to application to improve herbicide uptake. Where cordgrass has been cut or mowed prior to application, allow significant regrowth before application to ensure adequate interception and uptake of the herbicide solution. Rainfall within 2 hours or immersion within 4 hours after application may reduce effectiveness.

Prior to application, survey the areas to be treated to determine if shellfish beds exist within the intended treatment area. Wait either until shellfish have been harvested before application is made or do not harvest shellfish for 14 days following treatment.

Add 1 to 2 quarts or more of nonionic surfactant or other adjuvant approved for use on aquatic sites and compatible with this product per 100 gallons of spray solution for broadcast applications (ground or air) and when using optical sensing application equipment.

Do not apply this product through any type of irrigation system

**APPLICATION:** Under ideal application conditions, that is, where silt and debris are not present on plant surfaces, good spray coverage is achievable, target plants are actively growing and labeled rates and application volumes are used, allow at least 4 hours drying time before plants are covered by tidewater. Where one or more of these conditions are not met, schedule applications to allow at least 5 hours drying time before plants are covered by tidewater. Do not apply when wind speed at the application site exceed 10 miles per hour.

**Broadcast Application (Ground):** Apply 2 to 8 quarts of this herbicide in 5 to 100 gallons of spray solution per acre. For best results, complete coverage of cordgrass clumps is required.

**Broadcast Application (Ground/Optical Sensing Application Equipment):** Apply to 2 8 quarts of this product in 5 to 100 gallons of spray solution per acre using equipment designed and calibrated to deliver spray solution only when cordgrass plants are present and detected by optical sensors. For best results, complete coveragecoverate of cordgrass clumps is required.

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**Hand-Held Back-Pack or High Volume Equipment:** Apply a 5 to 8 percent solution of this product. Ensure that complete coverage of cordgrass clumps is achieved. Do not spray to the point of run-off.

**Broadcast Application (Air):** Apply 2 to 8 quarts of this product in 5 to 10 gallons of spray solution per acre. Maintain at least a 50-foot buffer between commercial shellfish beds and treated areas. The potential for spray drift is dependent upon weather- and equipment-related factors. The applicator must be familiar with local wind patterns and monitor and record temperature and wind speed prior to and periodically during application. Schedule application in order to allow at least 5 hours before treated plants are covered by tidewater.

#### For Control of Giant Salvinia

For control of Giant Salvinia, this product may be applied as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70 percent active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 3 to 3.75 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

#### 8.2 Hollow Stem Injection

This product may be applied through hand-held injection devices that deliver labeled amounts of this product into targeted hollow-stem plants growing in any aquatic or non-crop site specified on this label. For control of the following hollow-stem plants, follow the use instructions below:

##### Castorbean (*Ricinus communis*)

Inject 4 mL/plant of this product into the lower portion of the main stem.

##### Hemlock, Poison (*Conium maculatum*)

Inject one leaf cane per plant 10 to 12 inches above root crown with 5 mL of a 5% v/v solution of this product.

##### Hogweed, Giant (*Heracleum mantegazzianum*)

Inject one leaf cane per plant 12 inches above root crown with 5 mL of a 5% v/v solution of this product.

##### Horsetail, Field (*Equisetum arvense*)

Inject one segment above the root crown with 0.5 mL/stem of this product. Use a small syringe that calibrates to this rate.

##### Iris, Yellow Flag (*Iris Pseudocorus*)

Cut flower stems with clippers 8 to 9 inches above the root crown. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL/stem of this product is injected into the stem.

##### Knotweed, Bohemian (*Polygonum bohemicum*),

##### Knotweed, Giant (*Polygonum sachalinense*), and

##### Knotweed, Japanese (*Polygonum cuspidatum*)

Inject 5 mL/stem of this product between second and third internode.

##### Reed, Giant (*Arundo donax*)

146 of 169

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Inject 6 mL/stem of this product between second and third internode.

**Thistle, Canada** (*Cirsium arvense*)

Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL/stem of this product is injected into the stem.

**NOTE:** Based on the maximum annual use rate of glyphosate for these non-crop sites, the combined total for all treatments must not exceed 8 quarts of this product per acre. At 5 mL per stem, 8 quarts should treat approximately 1500 stems.

**8.3 Cut Stump**

Cut stump treatments may be made on any site listed on this label. This product will control many types of woody brush and tree species. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50- to 100-percent solution of this product to the freshly-cut surface **immediately after** cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

For control of *Ailanthus altissima* (Tree-of-heaven) make a cut stump treatment according to the directions in this section using a spray mixture of 50 percent [INSERT BRAND NAME] and 10 percent Arsenal.

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

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

Use in areas such as airports, apartment complexes, commercial sites, ditch banks, driveways, dry ditches, dry canals, fencerows, forestry sites, golf courses, greenhouses, industrial sites, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, schools, sod or turf seed farms, sports complexes, storage areas, substations, utility sties, warehouse areas, other public areas, and wildlife management areas.

**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.

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

**TANK MIXTURES:** This product may be tank mixed with the following products. Refer to these product labels for approved non-crop sites and application rates. 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 precautionary statement sfor each product in the mixture.

Arsenal™	Outrider
Barricade™ 65WG	Pendulum™ 3.3 EC
Certainty	Pendulum WDG
diuron*	Plateau™

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Endurance™	Princep™DF
Escort XP	Princep™ Liquid
Garlon™ 3A	Ronstar 50 WP
Garlon 4	Sahara™
Hyvar X	simazine*
Karmex™	Surflan™
Krovar™ I DF	Telar™
Oust	2,4-D*

\* User is responsible for ensuring that tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

This product plus dicamba tank mixtures may not be applied by air in California.

**Brush Control Tank Mixtures**

**TANK MIXTURES:** Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any labeled rate of this product may be used in a tank mix.

For control of herbaceous weeds, use the lower tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher rates.

**NOTE:** For side trimming treatments, it is recommended that this product be used alone or in tank mixture with Garlon 4.

**PRODUCT**

Arsenal  
 Escort XP  
 Garlon 3A\*  
 Garlon 4

\* Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray compatibility problems.

**8.5 Habitat Management****Habitat Restoration and Management**

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including riparian and estuarine areas, rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**Wildlife Food Plots**

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

**8.6 Injection and Frill (Woody Brush and Trees)**

This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment that must penetrate into the living tissue. Apply 1 mL of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50- to 100-percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100-percent concentration of this product. For best results, application should be made during periods of active growth and after full leaf expansion.

**8.6 Roadsides**

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to roadsides.

**Shoulder Treatments**

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

**Guardrails and Other Obstacles to Mowing**

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

**Spot Treatment**

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

TANK MIXTURES: This product may be tank mixed with the following products for shoulder, guardrail, spot and bare ground treatments, provided that the specific tank mixture product is registered for use on such sites. Refer to these product labels for approved non-crop sites and application rates. 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 precautionary statements for each product in the mixture.

atrazine*	Landmark II MP	Poast
Crossbow L	Landmark MP	Ronstar 50 WSP
dicamba*	Landmark XP	Sahara DG
diuron*		simazine*
	Oust XP	Surflan AS
Escort XP	Outrider	Surflan WDG
Endurance	pendimethalin*	Telar DF
Gallery 75 DF	Plateau	Velpar DF
Krova I DF	Plateau DG	Velpar L
		2,4-D*

\* User is responsible for ensuring that tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

See the "MIXING" section of this label for general instructions for tank mixing.

**Release of Bermudagrass or Bahiagrass**

**Dormant Applications**

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product may also be tank mixed with Outrider herbicide or Oust for residual control. Tank mixtures of this product with Oust may delay greenup.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4- to 6-leaf stage.

Apply 6 to 48 ounces of this product in a tank mixture with 0.75 to 1.33 ounces Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

**TANK MIXTURES:** Apply 6 to 48 fluid ounces of this product per acre alone or in a tank mixture with 0.25 to 1 ounce per acre of Oust. Apply the labeled rates in 10 to 40 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. To avoid delays in green up and minimize injury, add no more than 1 ounce of Oust per acre on bermudagrass and no more than 0.5 ounce of Oust per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

**Actively Growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 12 to 36 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

This product may be tank mixed with Outrider herbicide for control or partial control of Johnsongrass and other weeds listed in the Outrider herbicide label. Use 6 to 24 ounces of this product with 0.75 to 1.33 ounces of Outrider herbicide. Use the higher rates of both products for control of perennial weeds or annual weeds greater than 6 inches in height.

**TANK MIXTURES:** This product may be tank-mixed with Oust. If tank-mixed, use no more than 12 to 24 fluid ounces of this product with 1 to 2 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpetcreeper
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season are not recommended, since severe injury may occur.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**Actively Growing Bahiagrass**

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full greenup or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 2 to 3 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider herbicide label in actively growing bahiagrass. Apply 1.5 to 3.5 fluid ounces of this product with 0.75 to 1.33 ounces of Outrider herbicide per acre. Use the higher rates for control of perennial weeds or annual weeds greater than 6 inches in height. Use only on well established bahiagrass.

TANK MIXTURES: A tank mixture of this product plus Oust may be used. Apply 4 fluid ounces of this product plus 0.25 ounce of Oust per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

**9.0 WEEDS CONTROLLED**

Always use the higher rate of this product per acre within the labeled 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 application rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 4.5 to 8 quarts per acre for enhanced results.

**9.1 Annual Weeds**

Apply to actively growing annual grasses and broadleaf weeds.

Allow at least 3 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See the "GENERAL INFORMATION" and "MIXING" and APPLICATION EQUIPMENT AND TECHNIQUES" sections for labeled uses and specific application instructions.

Use 1.5 pints per acre if weeds are less than 6 inches in height or runner length and 1 to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 0.75- to 1.5-percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

**WEED SPECIES**

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Anoda, spurred

Balsamapple\*\*

Barley\*

Barley, little\*

Barnyardgrass\*

Bassia, fivehook

Bittercress\*

Bluegrass, annual\*

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

- Bluegrass, bulbous\*
- Brome, downy\*
- Brome, Japanese\*
- Broomsedge
- Buttercup\*
- Castorbean
- Cheatgrass\*
- Cheeseweed (*Malva parviflora*)
- Chervil\*
- Chickweed\*
- Cocklebur\*
- Copperleaf, hophornbeam
- Copperleaf, Virginia
- Coreopsis, plains/tickseed\*
- Corn\*
- Crabgrass\*
- Cupgrass, woolly\*
- Dwarf dandelion\*
- Eclipta\*
- Falsedandelion\*
- Falseflax, smallseed\*
- Fiddleneck
- Filaree
- Fleabane, annual\*
- Fleabane, hairy (*Conyza bonariensis*)\*
- Fleabane, rough\*
- Foxtail\*
- Foxtail, Carolina\*
- Geranium, Carolina
- Goatgrass, jointed\*
- Goosegrass
- Groundsel, common\*
- Henbit
- Horseweed/Marestail (*Conyza canadensis*)
- Itchgrass\*
- Johnsongrass, seedling

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Junglerice  
Knotweed  
Kochia  
Lamb's-quarters\*  
Lettuce, prickly\*  
Mannagrass, eastern\*  
Mayweed  
Medusahead\*  
Morningglory (*Ipomoea spp*)  
Mustard, blue\*  
Mustard, tansy\*  
Mustard, tumble\*  
Mustard, wild\*  
Nightshade, black\*  
Oats  
Panicum, browntop\*  
Panicum, fall\*  
Panicum, Texas\*  
Pennycress, field\*  
Pepperweed, Virginia\*  
Pigweed\*  
Puncturevine  
Purslane, common  
Pusley, Florida  
Ragweed, common\*  
Ragweed, giant  
Rice, red  
Rocket, London\*  
Rocket, Yellow  
Rye\*  
Ryegrass\*  
Sandbur, field\*  
Sesbania, hemp  
Shattercane\*  
Shepherd's-purse\*  
Sicklepod

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Signalgrass, broadleaf\*  
 Smartweed, ladythumb\*  
 Smartweed, Pennsylvania\*  
 Sorghum, grain (milo)\*  
 Sowthistle, annual  
 Spanishneedles\*\*\*  
 Speedwell, Corn\*  
 Speedwell, purslane\*  
 Sprangletop\*  
 Spurge, annual  
 Spurge, prostrate\*  
 Spurge, spotted\*  
 Spurry, umbrella\*  
 Starthistle, yellow  
 Stinkgrass\*  
 Sunflower\*  
 Teaweed / Prickly sida  
 Thistle, Russian  
 Velvetleaf  
 Wheat\*  
 Wild oats\*  
 Witchgrass\*

\* When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 12 fluid ounces of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

\*\* Apply with hand-held equipment only.

\*\*\* Apply 3 pints of this product per acre

## 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 labeled range.

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 a 4- to 8-percent solution of this product.

Allow 7 or more days after application before tillage. If weeds have been mowed or tilled, do not treat until regrowth has reached the recommended stages. Fall treatments must be applied before a killing frost.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

<b>Weed Species</b>	<b>Rate (QT/A)</b>	<b>Hand-Held % Solution</b>
Alfalfa*	0.7	1.5
Alligatorweed*	3.0	1.3
Anise (fennel)	1.5 – 3.0	1.0 – 1.5
Bahiagrass	2.3 – 3.75	1.5
Beachgrass, European ( <i>Ammophila arenaria</i> )	–	3.5
Bentgrass*	1.0	1.5
Bermudagrass	4.0	1.5
Bermudagrass, water (knotgrass)	1.0	1.5
Bindweed, field	3.0 – 3.75	1.5
Bluegrass, Kentucky	1.5 – 2.3	0.75
Blueweed, Texas	3.0 – 3.75	1.5
Brackenfern	2.3 – 3	0.75 – 1.0
Bromegrass, smooth	1.5 – 2.3	0.75
Bursage, woolly-leaf	–	1.5
Canarygrass, reed	1.5 – 2.3	0.75
Cattail	2.3 – 3.75	0.75
Clover; red, white	2.3 – 3.75	1.5
Cogongrass	2.3 – 3.75	1.5
Cordgrass	2.3 – 3.75	1.0 – 2.0
Cutgrass, giant	3.0	1.0
Dallisgrass	2.3 – 3.75	1.5
Dandelion	2.3 – 3.75	1.5
Dock, curly	2.3 – 3.75	1.5
Dogbane, hemp	3.0	1.5
Fescue (except tall)	2.3 – 3.75	1.5
Fescue, tall	2.3	1.0
Guineagrass	2.3	0.75
Hemlock, poison	1.5 – 3.0	0.75 – 1.5
Horsenettle	2.3 – 3.75	1.5
Horseradish	3.0.	1.5
Iceplant	1.5	1.5
Ivy, German, cape	1.5 – 3.0	0.75 – 1.5
Jerusalem artichoke	2.3 – 3.75	1.5
Johnsongrass	1.5 – 2.3	0.75

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Kikuyugrass	1.5 – 2.3	0.75
Knapweed	3.0	1.5
Lantana	–	0.75 – 1.0
Lespedeza	2.3 – 3.75	1.5
Loosestrife, purple	2.0	1.0 – 1.5
Lotus, American	2.0	0.75
Maidencane	3.0	0.75
Milkweed, common	2.3	1.5
Muhly, wirestem	1.5 – 2.3	0.75
Mullein, common	2.3 – 3.75	1.5
Napiergrass	2.3 – 3.75	1.5
Nightshade, silverleaf	3.0 – 3.75	1.5
Nutsedge; purple, yellow	2.3	0.75
Orchardgrass	1.5 – 2.3	0.75
Pampasgrass	2.3 – 3.75	1.5
Paragrass	3.0	0.75
Pepperweed, perennial	3.0	1.5
Phragmites*	2.0 – 3.75	0.75 – 1.5
Quackgrass	1.5 – 2.3	0.75
Redvine*	1.5	1.5
Reed, giant ( <i>Arundo donax</i> )	3.0 – 3.75	1.5
Ryegrass, perennial	1.5 – 2.3	0.75
Salvinia, giant	3 – 3.75	2.0
Smartweed, swamp	2.3 – 3.75	1.5
Spatterdock	3	0.75
Spurge, leafy*	–	1.5
Starthistle, yellow	–	1.5
Sweet potato, wild*	–	1.5
Thistle, artichoke	1.5 – 2.3	2.0
Thistle, Canada	1.5 – 2.3	1.5
Timothy	1.5 – 2.3	1.5
Torpedograss*	3.0 – 3.75	0.75 – 1.5
Trumpetcreeper*	1.5 – 2.3	1.5
Tules, common	–	1.5
Vaseygrass	2.3 – 3.75	1.5

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Velvetgrass	2.3 – 3.75	1.5
Waterhyacinth	2.5 – 3.0	0.75 – 1.0
Waterlettuce	–	0.75 – 1.0
Waterprimrose	–	0.75
Wheatgrass, western	1.5 – 2.3	0.75

\* Partial control

**Alligatorweed** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1.3-percent solution with hand-held equipment to provide partial control of alligatorweed. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

**Beachgrass, European** – Apply an 8-percent solution of this products plus 0.5- to 1.5-percent nonionic surfactant on a low volume spray-to-wet basis. Best results are obtained when applications are made when European beachgrass is actively growing through the boot to the full heading stages of growth. Make applications prior to the loss of more than 50 percent green leaf color in the fall. Do not treat when weeds are under drought stress. Repeat applications may be necessary.

**Bermudagrass** – Apply 4 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and when seed heads appear.

**Bindweed, field/Silverleaf Nightshade/Texas Blueweed** – Apply 3 to 3.75 quarts of this product per acre as a broadcast spray west of the Mississippi River and 2.3 to 3 quarts of this product per acre east of the Mississippi River. With hand-held equipment, use a 1.5-percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

**Brackenfern** – Apply 2.3 to 3 quarts of this product per acre as a broadcast spray or as a 0.75- to 1-percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Cattail** – Apply 2.3 to 3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

**Cogongrass** – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

**Cordgrass** – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 1- to 2-percent solution with hand-held equipment. Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of debris and silt on the cordgrass plants will reduce performance. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant.

**Cutgrass, giant** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1-percent solution with hand-held equipment to provide partial control of giant cutgrass. Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7 to 10-leaf stage prior to retreatment.

**Dogbane, hemp/Knapweed/Horseradish** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**Fescue, tall** – Apply 2.3 quarts of this product per acre as a broadcast spray or as a 1-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.

**Guineagrass** – Apply 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when target plants are actively growing and when most have reached at least the 7-leaf stage of growth.

**Johnsongrass/Bluegrass, Kentucky/Bromegrass, smooth/Canarygrass, reed/Orchardgrass/Ryegrass, perennial/Timothy/Wheatgrass, western** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

**Lantana** – Apply this product as a 0.75- to 1-percent solution with hand-held equipment. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

**Loosestrife, purple** – Apply 2 quarts of this product per acre as a broadcast spray or as a 1- to 1.5-percent solution using hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.

**Lotus, American** – Apply 2 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.

**Maidencane/Paragrass** – Apply 3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7- to 10-leaf stage prior to retreatment.

**Milkweed, common** – Apply 2.3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.

**Nutsedge: purple, yellow** – Apply 2.3 quarts of this product per acre as a broadcast spray, or as a 0.75-percent solution with hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

**Pampasgrass** – Apply a 1.5-percent solution of this product with hand-held equipment when plants are actively growing.

**Phragmites** – For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 3.75 quarts per acre as a broadcast spray or apply a 1.5-percent solution with hand-held equipment. In other areas of the U.S., apply 2 to 3 quarts per acre as a broadcast spray or apply a 0.75-percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

**Quackgrass/Kikuyugrass/Muhly, wirestem** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment when most quackgrass or

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

wirestem muhly is at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Reed, giant/Ice Plant** – For control of giant reed and ice plant, apply a 1.5-percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in late summer to fall.

**Salvinia, giant** - Apply as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70% active ingredient. For broadcast applications, apply 3 to 3.75 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

**Spatterdock** – Apply 3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

**Sweet potato, wild** – Apply this product as a 1.5-percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment.

**Thistle: Canada, artichoke** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2-percent solution as a spray-to-wet application. Apply when target plants are actively growing and are at or beyond the bud stage of growth.

**Torpedograss** – Apply 3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

**Tules, common** – Apply this product as a 1.5-percent solution with hand-held equipment. Apply to actively growing plants at or beyond the seedhead stage of growth. After application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.

**Waterhyacinth** – Apply 2.5 to 3 quarts of this product per acre as a broadcast spray or apply a 0.75- to 1-percent solution with hand-held equipment. Apply when target plants are actively growing and at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher rates when more rapid visual effects are desired.

**Waterlettuce** – For control, apply a 0.75- to 1-percent solution of this product with hand-held equipment to actively growing plants. Use higher rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring applications may require retreatment.

**Waterprimrose** – Apply this product as a 0.75-percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

**Other perennials listed on this label** – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

### 9.3 Woody Brush and Trees

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 4- to 8-percent solution of this product.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

<b>Weed Species</b>	<b>Broadcast Rate (Quart/Acre)</b>	<b>Hand-Held Spray-to-Wt % Solution</b>
Alder	2.3 – 3.0	0.75 – 1.2
Ash*	1.5 – 3.75	0.75 – 1.5
Aspen, quaking	1.5 – 2.3	0.75 – 1.2
Bearclover (Bearmat)*	1.5 – 3.75	0.75 – 1.5
Beech*	1.5 – 3.75	0.75 – 1.5
Birch	1.5	0.75
Blackberry	2.3 – 3.0	0.75 – 1.2
Blackgum	1.5 – 3.75	0.75 – 1.5
Bracken	1.5 – 3.75	0.75 – 1.5
Broom; French, Scotch	1.5 – 3.75	1.2 – 1.5
Buckwheat, California*	1.5 – 3.0	0.75 – 1.5
Cascara*	1.5 – 3.75	0.75 – 1.5
Castorbean	–	1.5
Catsclaw*	–	1.2 – 1.5
Ceanothus*	1.5 – 3.75	0.75 – 1.5
Chamise*	1.5 – 3.75	0.75
Cherry; bitter, black, pin	1.5 – 3.75	1.0 – 1.5
Cottonwood, eastern	1.5 – 3.75	0.75 – 1.5
Coyote brush	2.3 – 3.0	1.2 – 1.5
Cypress, swamp, bald	1.5 – 3.75	0.75 – 1.5
Deerweed	1.5 – 3.75	0.75 – 1.5
Dewberry	2.3 – 3	0.75 – 1.2
Dogwood*	3.0 – 3.75	1.0 – 2.0
Elderberry	1.5	0.75
Elm*	1.5 – 3.75	0.75 – 1.5
Eucalyptus	–	1.5
Gallberry	1.5 – 3.75	0.75 – 1.5
Gorse*	1.5 – 3.75	0.75 – 1.5

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Hackberry, western	1.5 – 3.75	0.75 – 1.5
Hasardia*	1.5 – 3.0	0.75 – 1.5
Hawthorn	1.5 – 2.3	0.75 – 1.2
Hazel	1.5	0.75
Hickory*	3.0 – 3.75	1.0 – 2.0
Honeysuckle	2.3 – 3.0	0.75 – 1.2
Hornbeam, American*	1.5 – 3.75	0.75 – 1.5
Huckleberry	1.5 – 3.75	0.75 – 1.5
Ivy, poison	3.0 – 3.75	1.5
Knotweed, Bohemian, Giant and Japanese**	–	–
Kudzu	3.0	1.5
Locust, black*	1.5 – 3.0	0.75 – 1.5
Madrone resprouts*	–	1.5
Magnolia, sweetbay	1.5 – 3.75	0.75 – 1.5
Manzanita*	1.5 – 3.75	0.75 – 1.5
Maple, red	1.0 – 3.75	0.75 – 1.2
Maple, sugar	–	0.75 – 1.2
Maple, vine*	1.5 – 3.75	0.75 – 1.5
Monkey flower*	1.5 – 3.0	0.75 – 1.5
Oak; black, white*	1.5 – 3.0	0.75 – 1.5
Oak, poison	3.0 – 3.75	1.5
Oak, post	2.3 – 3.0	0.75 – 1.2
Oak; northern, pin	1.5 – 3.0	0.75 – 1.2
Oak, red	–	0.75 – 1.2
Oak, Scrub*	1.5 – 3.0	0.75 – 1.5
Oak; southern red	1.5 – 3.75	1.0 – 1.5
Orange, Osage	1.5 – 3.75	0.75 – 1.5
Peppertree, Brazilian (Florida holly)*	1.5 – 3.75	1.5
Persimmon*	1.5 – 3.75	0.75 – 1.5
Pine	1.5 – 3.75	0.75 – 1.5
Poplar, yellow*	1.5 – 3.75	0.75 – 1.5
Prunus	1.5 – 3.75	1.0 – 1.5
Raspberry	2.3 – 3.0	0.75 – 1.2
Redbud, eastern	1.5 – 3.75	0.75 – 1.5

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Redcedar, eastern	1.5 – 3.75	0.75 – 1.5
Rose, multiflora	1.5	0.75
Russian olive*	1.5 – 3.75	0.75 – 1.5
Sage, black	1.5 – 3.0	0.75
Sage, white*	1.5 – 3.0	0.75 – 1.5
Sage brush, California	1.5 – 3.0	0.75
Salmonberry	1.5	0.75
Saltbush	–	1.0
Saltcedar**	1.5 – 3.75	0.75 – 1.5
Sassafras*	1.5 – 3.75	0.75 – 1.5
Sea Myrtle	–	1.0
Sourwood*	1.5 – 3.75	0.75 – 1.5
Sumac; laurel, poison, smooth, sugarbush, winged*	1.5 – 3.0	0.75 – 1.5
Sweetgum	1.5 – 2.3	0.75 – 1.5
Swordfern*	1.5 – 3.75	0.75 – 1.5
Tallowtree, Chinese	–	0.75
Tanoak resprouts*	–	1.5
Thimbleberry	1.5	0.75
Tobacco, tree*	1.5 – 3.0	0.75 – 1.5
Toyon*	–	1.5
Trumpet creeper	1.5 – 2.3	0.75 – 1.2
Vine maple*	1.5 – 3.75	0.75 – 1.5
Virginia creeper	1.5 – 3.75	0.75 – 1.5
Waxmyrtle, southern*	1.5 – 3.75	1.5
Willow	2.3	0.75
Yerbasenta, California*	–	1.5

\* Partial control

\*\* Refer to specific instructions below

**Alder/Blackberry/Dewberry/Honeysuckle/Oak, Post/Raspberry** – For control, apply 2.3 to 3 quarts per acre as a broadcast spray or as a 0.75- to 1.2-percent solution with hand-held equipment.

**Aspen, Quaking/Hawthorn/Trumpet creeper** – For control, apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.2-percent solution with hand-held equipment.

**Birch/Elderberry/Hazel/Salmonberry/Thimbleberry** – For control, apply 1.5 quarts per acre of this product as a broadcast spray or as a 0.75-percent solution with hand-held equipment.

**Broom: French, Scotch** – For control, apply a 1.2- to 1.5-percent solution with hand-held equipment.

**Buckwheat, California/Hasardia/Monkey Flower/ Tobacco, Tree** – For partial control of these species, apply a 0.75- to 1.5-percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

## V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**Castorbean** – For control, apply a 1.5-percent solution of this product with hand-held equipment.

**Catsclaw** – For partial control, apply a 1.2- to 1.5-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Cherry: Bitter, Black, Pin/Oak, Southern Red/Sweet Gum/Prunus** – For control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast spray or as a 1- to 1.5-percent solution with hand-held equipment.

**Coyote brush** – For control, apply a 1.2- to 1.5-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Dogwood/Hickory**-For partial control, apply a 1- to 2-percent solution of this product with hand-held equipment or 3 to 3.75 quarts per acre as a broadcast spray.

**Eucalyptus, bluegum** – For control of eucalyptus resprouts, apply a 1.5-percent solution of this product with hand-held equipment when resprouts are 6- to 12-feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought-stressed plants.

**Knotweed, Bohemian, Giant and Japanese (*Polygonum bohemicum*, *P. sachalinense* and *P. cuspidatum*)**

Stem Injection. See the Hollow Stem Injection Section of this label.

Cut Stem. Cut stems cleanly just below the 2<sup>nd</sup> or 3<sup>rd</sup> node above the ground. Immediately apply 0.36 fluid ounce (10 mLs) of a 50-percent solution of this product into the 'well' or remaining internode. Ensure that removed upper plant material is carefully gathered and discarded so that it will not contact soil and regenerate plants from sprouting buds. Use of a bio-barrier such as cardboard, plywood or plastic sheeting is recommended.

The combined total for all treatments must not exceed 8 quarts per acre. At 10mL of a 50-percent solution, approximately 1500 stems per acre may be treated.

**Kudzu** – For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Maple, Red** – For control, apply as a 0.75- to 1.2-percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 1 to 3.75 quarts of this product per acre as a broadcast spray.

**Maple, Sugar/Oak: Northern Pin, Red** – For control, apply as a 0.75- to 1.2-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Peppertree, Brazilian (Holly, Florida)/Waxmyrtle, southern** – For partial control, apply this product as a 1.5-percent solution with hand-held equipment.

**Poison Ivy/Poison Oak** – For control, apply 3 to 3.75 quarts of this product per acre as a broadcast spray or as a 1.5-percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora** – For control, apply 1.5 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese** – For control of these species, apply a 0.75-percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Saltbush, Sea myrtle** – For control, apply this product as a 1-percent solution with hand-held equipment.

**Saltcedar** – For partial control, apply a 1- to 2-percent solution of this product with hand-held equipment or 3 to 3.75 quarts per acre as a broadcast spray. For control, apply a 1- to 2-percent solution of this product mixed with 0.25-percent Arsenal with hand-held equipment. For control using broadcast applications, apply 1.5 quarts of this product in a tank-mix with 1 pint of Arsenal to plants less than 6 feet

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V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

tall. To control saltcedar greater than 6 feet tall using broadcast applications, apply 3 quarts of this product in a tank-mix with 2 pints of Arsenal.

**Willow** – For control, apply 2.3 quarts of this product per acre as a broadcast spray or as a 0.75-percent solution with hand-held equipment.

**Other woody brush and trees listed in this label** – For partial control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment.

**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.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the fullest extent permitted by law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Certainty, [INSERT BRAND NAME], Outrider, Monsanto and Vine symbol are trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

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In case of an emergency involving this product, or for medical assistance,  
Call Collect, day or night, (314) 694-4000.

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©[DATE] MONSANTO COMPANY  
800 N. Lindbergh Blvd.  
St. Louis, Missouri, 63167 U.S.A.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

VI. SUPPLEMENTAL LABELING FOR AQUATIC AND OTHER NON-CROP USES

Table of Contents: Aquatic and Other Non-Crop Uses Supplemental Labeling

	Name	Approval Date
<b>A</b>	FOR AERIAL APPLICATION IN CALIFORNIA ONLY (Including Fresno County, CA)	10-Nov-2003
<b>B</b>	FOR CONTROL OF EUROPEAN BEACHGRASS ( <i>Ammophila arenaria</i> ) IN CALIFORNIA.	2-April-2008

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**SUPPLEMENTAL LABELING**

READ THE ENTIRE LABEL FOR **[INSERT BRAND NAME]** BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

When using **[INSERT BRAND NAME]** as permitted according to this supplemental labeling, read and follow all applicable directions, restrictions, and precautions on the label booklet provided with the pesticide container and on this supplemental labeling. This supplemental labeling must be in the possession of the user at the time of pesticide application.

**[INSERT BRAND NAME] LOGO**

EPA Reg. No. 524-343

**[INSERT BRAND NAME]** is a trademark of Monsanto Technology LLC.

Keep out of reach of children.

**CAUTION!**

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

**DIRECTIONS FOR USE**

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

This label must be in the possession of the user at the time of the herbicide application.

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

See the "GENERAL INFORMATION", "MIXING AND APPLICATION INSTRUCTIONS" and "AQUATIC AND OTHER NON-CROP SITES" sections of the label booklet for **[INSERT BRAND NAME]** herbicide for essential product performance information. See the "WEEDS CONTROLLED" section of the label booklet for **[INSERT BRAND NAME]** herbicide for optimum stage of treatment of weed for best results.

**[INSERT SUPPLEMENTAL DIRECTIONS FOR USE HERE]**

When used in combination as recommended by Monsanto Company, the liability of Monsanto shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the Monsanto product in such combination use.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for **[INSERT BRAND NAME]** herbicide before buying or using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

©[DATE] MONSANTO COMPANY  
800 N. Lindbergh Blvd.  
St. Louis, Missouri, 63167 U.S.A.

[Print Plate] [Approval date]

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

**A. FOR AERIAL APPLICATION IN CALIFORNIA ONLY (Including Fresno County, CA)**

**AQUATIC AND OTHER NON-CROP SITES**

When applied as directed and under the conditions described in the "WEED CONTROLLED" section of the [INSERT BRAND NAME] label booklet, this product will control or partially control the labeled weeds, woody brush, and trees growing in the terrestrial non-crop sites listed on this label or in aquatic sites within these areas.

This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, nonflowing or transient. This includes lakes, rivers, streams, ponds, estuaries, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas, and similar sites.

If aquatic sites are present in the non-crop area and are part of the intended treatment, read and observe the following directions:

**This product does not control plants which are completely submerged or have a majority of their foliage under water.**

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

**NOTE:** Do not apply this product **directly to water** within 0.5 mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 0.5 mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within 0.5 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made **ONLY** in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does **NOT** apply to intermittent inadvertent overspray of water in terrestrial use sites.

**Aerial Equipment**

**AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.**

Use the following guidelines when aerial applications are made near crops or desirable vegetation after bud break and before total leaf drop and/or near other desirable vegetation or annual crops.

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward the desirable vegetation or crop(s) may require buffer zones in excess of the 500 foot minimum.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.
5. Apply by air only to nonresidential areas.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the air-stream and does not increase spray volume by increasing nozzle pressure. Drift control additives may be

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

**Ensure uniform application**—To avoid streaking, uneven, or overlapped application, use appropriate marking devices. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills.

Aerial applications of this product are allowed in the following situations:

1. Prior to the emergence or transplanting of labeled crops
2. Aid to burning for establishment and maintenance of fuel breaks
3. Establishing fire perimeters and black lines
4. Aid to prescribed burning
5. Along fire roads
6. Range conversion
7. Habitat restoration and management
8. Wildlife food plots

Use the labeled rates of this herbicide in 3 to 25 gallons of water per acre.

The maximum application rate of 7.5 pints per acre must not be exceeded in any single broadcast application that is being made over water.

When tank mixing this product with 2,4-D for aerial applications, only 2,4-D amine formulations may be used for aerial application in California.

Aerial applications may be made with helicopters only.

**FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY**

**(From February 15 through March 31 Only)**

**Applicable Area**

This section of the supplement only applies to the area contained inside the following boundaries within Fresno County, California.

- North: Fresno County line
- South: Fresno County line
- East: State Highway 99
- West: Fresno County line

**General Information**

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

**Written Recommendations**

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's product label and this label have been satisfied.

**Aerial Applicator Training and Equipment**

Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a

168 of 169

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

**Applications at Night**—Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of this product, call 1-800-332-3111.

For additional information on the proper aerial application of this product, call 916-784-1718.

**Note:** For aerial application from April 1 through February 14, refer to the other sections of this supplemental label.

B. FOR CONTROL OF EUROPEAN BEACHGRASS (*Ammophila arenaria*) IN CALIFORNIA.

**RECOMMENDATIONS**

Best results are obtained when applications are made when European beachgrass is actively growing through the boot to the full heading stages of growth. Applications should be made prior to the loss of more than 50% green leaf color in the fall.

Applications made during any period of plant (drought) stress, or beyond the recommended active growth period in the fall, will likely result in reduced performance.

Repeat applications of AquaMaster herbicide may be necessary to treat skips. Monitor treated areas prior to reseeding of desirable vegetation.

**SPRAY TO WET APPLICATIONS**

Apply an 8 percent solution of this product plus 0.5 to 1.5 percent nonionic surfactant on a spray-to-wet basis for control of European beachgrass. Spray coverage should be uniform and complete but not to the point of runoff.

**WIPER APPLCIATIONS**

For selective control of European beachgrass, apply a 33 1/3 percent solution of this product plus 1 to 2.5 percent nonionic surfactant during active growth. Avoid contact of herbicide solution with desirable vegetation. Wiping the plants in opposite directions may improve performance. Maximizing the amount of individual leaf tissue contacted with the wiping equipment will result in optimal performance.

V. MAIN LABEL FOR AQUATIC AND OTHER NON-CROP USES

Revisions this submission for 000524-00343.20090313.master.pdf

Crop label is inactive and is not being maintained. Changes apply to:

Section III - Main label for Industrial, Turf & Ornamental and Forestry Uses

Section V – Main Label for Aquatic and other Non-Crop Uses

Update per Container-Containment Rule

Delete “green” with regard to injury to green stems or bark as there is the potential for injury to young stems or bark that may not ever be green

Listed non-food crops separately in section 8.1

Changed “recommended rates (range)” to “labeled rate(s) (range)” per EPA letter of April 2008.

**NEXT**

**LABEL**

524-343

6/17/2009

10f3



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

AND

OFFICE OF  
PREVENTION, PESTICIDES  
TOXIC SUBSTANCES

JUN 17 2009

Ms. Dawn M. Fee-White  
Monsanto Company, Lawn and Garden Products  
1300 I Street, N.W., Suite 450 East  
Washington, DC 20005

Dear Ms. Fee-White:

Subject: AquaMaster Herbicide (Foliar and Broadcast Treatment of Japanese Knotweed and Oriental Bittersweet)  
EPA Registration No. 524-343  
Application Dated April 8, 2009

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable. A stamped copy of labeling is enclosed for your records.

Supplemental labeling must be incorporated into master labeling and copies of master labeling submitted to the Agency for our files at your next printing or within two years from the date of acceptance of master labeling, whichever comes first. The Agency will consider a convincing argument as to why a supplemental label should not appear on a master label on a case by case basis.

Sincerely,

*James A. Tompkins for*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

## SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR **AQUAMASTER® HERBICIDE** BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

When using AquaMaster Herbicide as permitted according to this supplemental labeling, read and follow all applicable directions, restrictions, and precautions on the label booklet provided with the pesticide container and on this supplemental labeling. This supplemental labeling must be in the possession of the user at the time of pesticide application.

## AQUAMASTER HERBICIDE LOGO

For Foliar and Broadcast Treatment of Japanese Knotweed & Oriental Bittersweet

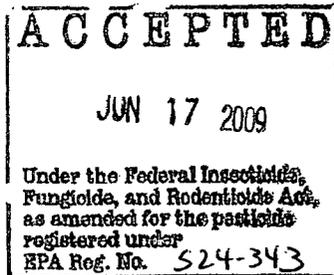
EPA Reg. No. 524-343

AquaMaster is a trademark of Monsanto Technology LLC.

Keep out of reach of children.

### CAUTION!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.



### DIRECTIONS FOR USE

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

This label must be in the possession of the user at the time of the herbicide application.

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

See the "GENERAL INFORMATION", "MIXING AND APPLICATION INSTRUCTIONS" and "AQUATIC AND OTHER NON-CROP SITES" sections of the label booklet for AquaMaster herbicide for essential product performance information. See the "WEEDS CONTROLLED" section of the label booklet for AquaMaster herbicide for optimum stage of treatment of weed for best results.

### JAPANESE KNOTWEED

For control of Japanese knotweed (*Polygonum cuspidatum*), this product may be applied as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant

containing at least 70 percent active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 3 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

**ORIENTAL BITTERSWEET**

For control of Oriental bittersweet (*Celastrus orbiculatus*), this product may be applied as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70 percent active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 2.25 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

**WARRANTY AND LIABILITY**

When used in combination as recommended by Monsanto Company, the liability of Monsanto shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the Monsanto product in such combination use.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for AquaMaster herbicide before buying or using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

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St. Louis, Missouri, 63167 U.S.A.

[Print Plate]      [Approval date]

