

524-539

9/20/2010

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

SEP 20 2010

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Stephen Adams  
Monsanto Company  
1300 I (Eye) Street, NW  
Suite 450 East  
Washington, DC 20005

Subject: Label Amendment  
EPA Reg. No.: 524-539 / Roundup Original 2K Herbicide

Dear Mr. Adams:

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 the label is enclosed for your records. This label supersedes all previously accepted labels. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these conditions. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Tompkins", written over a circular stamp.

Jim Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7504P)

**MASTER LABEL FOR EPA REG. NO. 524-539**

Registered Brand Names:

**Roundup Original 2K Herbicide  
Roundup Original MAX Herbicide  
RT Master II Herbicide**

Master Label Table of Contents

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**ACCEPTED**  
**SEP 20 2010**  
 Under the Federal Insecticide,  
 Fungicide, and Rodenticide Act,  
 as amended, for the pesticide  
 registered under  
 EPA Reg. No. **524-539**

**E-SUBMISSION**

**I. CONTAINER LABEL**

Front Panel

**[INSERT BRAND NAME]**

Herbicide

GROUP	9	HERBICIDE
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AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, GREEN 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 COULD RESULT.

Keep out of reach of children

**CAUTION!**

[Optional text, if applicable: See precautions on side panel]

**ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its potassium salt.....	48.7%
OTHER INGREDIENTS: .....	51.3%
.....	100.0%

\*Contains 660 grams of the active ingredient glyphosate, in the form of its potassium salt, per liter or 5.5 pounds per U.S. gallon, which is equivalent to 540 grams of the acid, glyphosate, per liter or 4.5 pounds per U.S. gallon.

EPA Reg. No. 524-539

**Herbicide for Roundup Ready® Crops**

The complete broad-spectrum postemergence herbicide for weed control in many agricultural systems

Selective broad-spectrum weed control in Roundup Ready crops

Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads

Transorb® (Logo)

Transorb® II Technology (Logo)

Trisorb® (Logo)

CROPSHIELD™ Formulation

CROPSHIELD Formula – Specially formulated for Roundup Ready Crops (Logo)

Roundup – Powerful Performance at a Practical Price

A member of the Roundup Family of Agricultural 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.”

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I. CONTAINER LABEL

Not all products listed 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.

[Optional text: See label booklet for Complete Directions for Use.]

Use only according to label instructions.

[Optional text: For product information or assistance in using this product, call toll-free 1-800-332-3111]

Read the "LIMIT OF WARRANTY AND LIABILITY" statement [optional text: which appears in the label booklet,] before buying or using. If terms are not acceptable, return at once unopened.

[Optional 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 MONSANTO.]

[Optional container label statement: THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION OR REPACKAGING.]

This product is protected by U.S. Patent Nos. 6,365,551 and RE 37,866. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Est. 524-IA-1; EPA Est. 524-LA-1 [Optional text: Other EPA Est.]

[Alternate text: EPA Est. (L) 524-LA-1 or (M) 524-IA-1

Lot number prefix (L) and (M) indicate appropriate establishment number.]

NET [insert appropriate weight] GAL [Alternate text: NET CONTENTS]

[Insert lot number]

Roundup, Roundup Ready, Monsanto and the Vine symbol are trademarks of Monsanto Technology LLC.

[Insert Monsanto Vine symbol (logo)]

[Insert print plate number and barcode(s) as applicable]

Packed for:

MONSANTO COMPANY  
800 N. LINDBERGH BLVD.  
ST. LOUIS, MISSOURI 63167 USA

[Side Panels (if applicable)]

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children

**CAUTION!**

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes, skin, or clothing

<b>FIRST AID:</b> Call a poison control center or doctor for treatment advice.	
<b>IF IN EYES</b>	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.

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I. CONTAINER LABEL

	<ul style="list-style-type: none"> <li>Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye.</li> </ul>
<b>IF ON SKIN</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes</li> </ul>
<ul style="list-style-type: none"> <li>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li> <li>You may also call (314) 694-4000, collect day or night, for emergency medical treatment information.</li> <li>This product is identified as <b>[INSERT BRAND NAME], EPA Registration No. 524-539.</b></li> </ul>	

**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 could 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)**

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

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

*[OR the following alternate PPE requirements may be substituted:*

**Mixers, Loaders, Other Handlers and Applicators, when handling this concentrated product or its application solutions of 30 percent concentration or greater, must wear:** long-sleeved shirt and long pants, shoes, socks, and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

**Applicators, when handling only spray solutions where concentration is 30 percent of this product or less, must wear:** long-sleeved shirt and long pants, shoes, and socks.]

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

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

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

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

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## I. CONTAINER LABEL

- Remove clothing immediately if pesticide gets inside.
- Then wash thoroughly and put on clean clothing.

### 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 wash waters.

### Physical or Chemical Hazards

Spray solutions of this product may 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 could form a highly combustible gas mixture. This gas mixture could flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source, causing serious personal injury.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

#### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under AGRICULTURAL USE REQUIREMENTS in the DIRECTIONS FOR USE section for information about this standard.

#### 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.

### 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 or disposal.

**PESTICIDE STORAGE:** 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*

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I. CONTAINER LABEL

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:**

[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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [Optional container disposal statement: To find the nearest site, contact your chemical dealer or [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].] 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 statement: This container is not to be sold to homeowners for residential use.]

[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.

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## I. CONTAINER LABEL

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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. *[Optional container disposal statement: To find the nearest site, contact your chemical dealer or [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].]* 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 statement: This container is not to be sold to homeowners for residential use.]*

*[Optional text on outer cardboard packaging: THIS SIDE UP]*

*[Optional text on outer cardboard packaging: Pull at scored pullouts for easier opening]*

*[Optional text on outer cardboard packaging: TWO 2.5 GAL UNITS]*

### **[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NON-REFILLABLE 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 and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. 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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. *[Optional container disposal statement: To find the nearest site, contact your chemical dealer or [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].]* 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*



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I. CONTAINER LABEL

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 disposal statement: Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (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.

[Optional container disposal statement: To obtain information about recycling refillable containers, contact [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].]

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling, Contact 1-800-ROUNDUP (1-800-768-6387)]

[Optional additional container label statements for the CUBE refillable packaging system only:

**CUBE** Monsanto Refillable Delivery System  
2011 Compliant Meets 40 CFR Part 165 Subpart C - Refillable Container Standards

FEATURES INCLUDE:

- Automatic Venting
  - Heavy duty one-way 2-inch camloc ball valve with protective shield door
  - Complete coated steel protective enclosure
  - Durable 4-way plastic pallet
- Lift door to access one-way valve]

[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.

[Optional text: FOR REPACKAGING INTO [INSERT BRAND NAME] ONLY]

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

**[INSERT BRAND NAME]**

Herbicide

**Complete Directions for Use**

EPA Reg. No. 524-539

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

Herbicide for Roundup Ready® Crops

Herbicide for Roundup Ready® Crops and now Specially Formulated for Expanded Roundup Ready Flex Cotton Uses\* - \* See label booklet for details

The complete broad-spectrum postemergence herbicide for weed control in many agricultural systems

Selective broad-spectrum weed control in Roundup Ready crops

Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads

Transorb® (Logo)

Transorb® II Technology (Logo)

Trisorb® (Logo)

CROPSHIELD™ Formulation

CROPSHIELD Formula – Specially formulated for Roundup Ready Crops (Logo)

Roundup – Powerful Performance at a Practical Price

A member of the Roundup Family of Agricultural 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 listed 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.

Read the “LIMIT OF WARRANTY AND LIABILITY” statement at the end of this 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.

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**1.0 INGREDIENTS**

ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)glycine, in the form of its potassium salt..... 48.7%

OTHER INGREDIENTS: ..... 51.3%

..... 100.0%

\*Contains 660 grams of the active ingredient glyphosate, in the form of its potassium salt, per liter or 5.5 pounds per U.S. gallon, which is equivalent to 540 grams of the acid, glyphosate, per liter or 4.5 pounds per U.S. gallon.

This product is protected by U.S. Patent No's. 5,668,085 and 6,365,551. Other Patents Pending. No license granted under any non-U.S. patent(s).

II. MAIN LABEL FOR FOOD CROP USES

**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

**3.0 PRECAUTIONARY STATEMENTS**

**3.1 Hazards to Humans and Domestic Animals**

Keep out of reach of children

**CAUTION!**

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist.

<b>FIRST AID:</b> Call a poison control center or doctor for treatment advice.	
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye.</li> </ul>
<b>IF ON SKIN</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as <b>[INSERT BRAND NAME], EPA Registration No. 524-539</b> . You may also contact (314) 694-4000, collect day or night, for emergency medical treatment information.	

**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 could 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)**

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

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

*OR the following alternate PPE requirements may be substituted:*

**Mixers, Loaders, Other Handlers and Applicators, when handling this concentrated product or its application solutions of 30 percent concentration or greater, must wear:** long-sleeved shirt and long pants, shoes, socks, and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

II. MAIN LABEL FOR FOOD CROP USES

**Applicators, when handling only spray solutions where concentration is 30 percent of this product or less, must wear:** long-sleeved shirt and long pants, shoes, and socks.

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

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

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.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**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 wash waters.

**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 can form a highly combustible gas mixture. This gas mixture could flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source, causing serious personal injury.

**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 Internet at [www.agrian.com](http://www.agrian.com), [www.cdms.net](http://www.cdms.net) or [www.greenbook.net](http://www.greenbook.net) or obtained from your Authorized Monsanto Retailer or Monsanto Company Representative.

**The following paragraph is reserved and will only appear on final printed labeling for products under this registration if and when required by EPA:**

**ENDANGERED SPECIES PROTECTION REQUIREMENTS:** This product may have effects on federally listed threatened or endangered species or their critical habitat in some locations. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the

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county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult <http://www.epa.gov/espp/>, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

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, wear: 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.

## 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 or disposal.

**PESTICIDE STORAGE:** 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.]

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**CONTAINER DISPOSAL:** See container label for additional 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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [Optional container disposal statement: To find the nearest site, contact your chemical dealer or [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].] 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 statement: This container is not to be sold to homeowners for residential use.]

[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



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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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [Optional container disposal statement: To find the nearest site, contact your chemical dealer or [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].] 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 statement: This container is not to be sold to homeowners for residential use.]

[Optional text on outer cardboard packaging: THIS SIDE UP]

[Optional text on outer cardboard packaging: Pull at scored pullouts for easier opening]

[Optional text on outer cardboard packaging: TWO 2.5 GAL UNITS]

[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NON-REFILLABLE 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 and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. 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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [Optional container disposal statement: To find the nearest site, contact your chemical dealer or [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].] 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.]

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[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (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.

[Optional container disposal statement: To obtain information about recycling refillable containers, contact [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].]

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling, Contact 1-800-ROUNDUP (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 PRODUCT INFORMATION

**Product Description:** This product is a postemergence, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. It may be applied using most standard industrial or field sprayers after dilution and thorough mixing with water or other carriers according to label instructions.

[Optional label text: Do not add [Optional label text: surfactants, additives containing surfactants,] buffering agents or pH adjusting agents to the spray solution when [INSERT BRAND NAME] is the only pesticide used unless otherwise directed. 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 are a gradual wilting and yellowing of the plant that advances to complete browning of aboveground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds, effects might not be visible for 7 or more days. Extremely cool or cloudy weather following treatment can 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

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the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION," and "WOODY BRUSH AND TREES RATE SECTION" for more information on specific weeds.

Always use the higher product application rate within the given range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated area).

Reduces weed control could result when treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions.

**Cultural Considerations:** Reduced control could result when application is made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to re-grow to the specified stage for treatment.

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

**Spray Coverage:** For best results, spray coverage must be uniform and complete. Do not spray foliage to the point of run-off.

**Mode of Action:** The active ingredient in this product inhibits an enzyme found only in plants and microorganisms that is essential to the 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 affected. Plants arising from unattached underground rhizomes or rootstocks of perennials that have not yet emerged at the time of application will not be affected by this herbicide and will continue to grow.

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

**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 a tank mixture, 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. See the "INGREDIENTS" section of this label for necessary product information.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 5.3 quarts of this product (6 pounds of glyphosate acid) 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 7 quarts of this product (8 pounds of glyphosate acid) per acre per year.

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

6.0 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 can contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

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### 6.1 Weed Management Practices

To minimize the occurrence of glyphosate-resistant biotypes, observe the following weed management practices:

- Scout your fields before and after herbicide application.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g., a selective and/or a residual herbicide) and cultural practices (e.g., tillage or crop rotation) as part of your weed control system where appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Use the application rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism) or with ones that encourage application rates of this product below those specified on this label.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Use new commercial seed that is 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.

### 6.2 Management of Glyphosate-Resistant Biotypes

**Note:** Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Call 1-800-ROUNDUP (1-800-768-6387) or contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com) or [www.weedscience.org](http://www.weedscience.org). For more information see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

Directions for the control of biotypes confirmed as resistant to glyphosate are made available on separately published supplemental labeling or Fact Sheets for this product and can 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 result from the failure of this product to control glyphosate-resistant weed biotypes.

**The following good agronomic practices can reduce the spread of confirmed glyphosate-resistant biotypes:**

- If a naturally occurring resistant biotype is present in your field, 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 (e.g., crop rotation or tillage) can also be used as appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

### 7.0 MIXING

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

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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.

PRODUCT PERFORMANCE CAN BE SIGNIFICANTLY REDUCED IF WATER CONTAINING SOIL SEDIMENT IS USED AS CARRIER. DO NOT MIX THIS PRODUCT WITH WATER FROM PONDS OR DITCHES THAT IS VISIBLY MUDDY OR MURKY.

Eliminate any risk of siphoning the contents of the tank back into the carrier source while mixing. 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.

**7.1 Mixing with Water**

This product mixes readily with water. Mix spray solutions of this product as follows. Begin filling the mixing tank or spray tank with clean water. Add the required amount of this product near the end of the filling process and mix gently. Use caution to avoid siphoning back into the carrier source. Foaming of the spray solution can occur during mixing. To prevent or minimize foaming, mix gently, terminate bypass and return lines at the bottom of the tank, and, if necessary, use an anti-foam or defoaming agent.

**7.2 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.

Some tank-mix products have the potential to cause crop injury under certain conditions, at certain growth stages and/or under other circumstances. Read the label for all products to be used in the tank mixture prior to use to determine the potential for crop injury.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers could result in reduced weed control or crop injury. Monsanto has not tested all tank-mix product formulations for compatibility, antagonism or reduction in product performance. Buyer and all users are responsible for any and 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 specified on this label or in separate supplemental labeling or Fact Sheets published for this product.

When a tank-mix with a generic active ingredient, such as 2,4-D, atrazine, dicamba, diuron or pendimethalin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mix.

Refer to all individual product labels, supplemental labeling and Fact Sheets for all products in the tank mixture, and observe all precautions and limitations on the label, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines. Use according to the most restrictive precautionary statements for each product in the tank mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities in advance.

For best results, apply tank mixtures with this product at a minimum spray volume rate of 10 gallons per acre.

**7.3 Tank-Mixing Procedure**

Prepare tank mixtures of this product as follows:

1. Place a 20- to 35-mesh screen or wetting basket over the filling port of the tank.
2. Through the screen, fill the tank one-half full with water and start gentle agitation.

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3. If ammonium sulfate is to be used, add it slowly through the screen into the tank and continue adding water into the tank through the screen. If dry ammonium sulfate is being used, ensure that it is completely dissolved in the tank before adding other products.
4. If a wettable powder is used, prepare a slurry of it with water and add it SLOWLY through the screen into the tank while continuing gentle agitation.
5. If a flowable formulation is used, premix one part flowable with one part water and add the diluted mixture SLOWLY through the screen into the tank while continuing gentle agitation.
6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water and add the diluted mixture SLOWLY through the screen into the tank while continuing gentle agitation.
7. Continue filling the tank with water through the screen and add the required amount of this product near the end of the filling process.
8. If a nonionic surfactant is used, add it to the tank before completing the filling process.
9. Add individual tank-mix components to the tank as follows: wettable powders, flowables, emulsifiable concentrates, drift reduction additives, water soluble liquids (this product), surfactants.

Maintain gentle agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, thorough agitation is required to re-suspend the mixture before spraying.

Keep by-pass and return lines on or near the bottom of the tank to minimize foaming.

Screen size in nozzle or line strainers need not be finer than 50 mesh.

**7.4 Mixing for Hand-Held Sprayers**

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

Desired Volume	Amount of [INSERT BRAND NAME]					
	0.4%	0.7%	1%	1.5%	4%	7%
1 gal	0.5 oz	1 oz	1.3 oz	2 oz	5 oz	9 oz
25 gal	0.8 pt	0.7 qt	1 qt	1.5 qt	4 qt	7 qt
100 gal	1.6 qt	2.8 qt	1 gal	1.5 gal	4 gal	7 gal

2 tablespoons = 1 fluid ounce

For backpack sprayers, consider mixing the appropriate amount of this product with water in a larger container and then filling the sprayer from the larger container.

**7.5 Surfactants**

Although not always required, surfactant may be added to spray solutions of this product. However, additional surfactant can increase the performance of this product at water carrier volumes above 30 gallons per acre or at application rates below 16 fluid ounces of product per acre.

Nonionic surfactants that are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use a rate of 0.25 to 0.5 percent surfactant concentration (1 to 2 quarts per 100 gallons of spray solution) when using surfactants that contain at least 70 percent active ingredient, or 1 percent surfactant concentration (4 quarts per 100

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gallons of spray solution) when using surfactants that contain less than 70 percent active ingredient. Read and carefully observe all caution statements and other information on the surfactant label.

DO NOT add buffering agents or pH adjusting agents to the spray solution when [INSERT BRAND NAME] is the only pesticide product being applied. DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PREHARVEST APPLICATION TO COTTON OR ANY POSTEMERGENCE (IN-CROP) APPLICATION TO ROUNDUP READY COTTON AND ROUNDUP READY FLEX COTTON.

**7.6 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, could increase the performance of this product on annual and perennial weeds, particularly under hard water conditions, drought conditions or when tank-mixed with certain residual herbicides. An equivalent amount of a liquid formulation of ammonium sulfate 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 promptly after use to reduce corrosion.

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

**7.7 Colorants and Dyes**

Colorants and marking dyes may be added to spray solutions of this product; however, they can reduce performance of this product. Use colorants and dyes according to the manufacturer's directions.

**7.8 Drift Reduction Additives**

Drift reduction additives may be used with all equipment types, except wiper applicators, sponge bars and controlled droplet applicators (CDA). When a drift reduction additive is used, read and carefully observe all precautions, limitations and all other information on the product label. Use of drift reduction additives can affect spray coverage, which could reduce the performance of this product.

**8.0 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 Application Equipment**—Fixed-wing and helicopter

**Ground Application Equipment**—Boom or boomless systems, pull-type sprayers, floaters, pick-up sprayers, spray coupes and other ground broadcast application equipment

**Hand-Held and Backpack Sprayers**—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 Application Equipment**—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 that produce a spray consisting of a narrow range of droplet sizes

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE DESIRED VOLUMES.

**8.1 Aerial Application Equipment**

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All treatments described on this label may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label and in separate supplemental labeling published for this product.

**DO NOT APPLY THIS PRODUCT USING AERIAL APPLICATION EQUIPMENT EXCEPT UNDER CONDITIONS SPECIFIED ON THIS LABEL.**

Apply this herbicide at the appropriate rate as described on this label in 3 to 15 gallons of water per acre unless otherwise specified on this label or on separate supplemental labeling or Fact Sheets published for this product. Unless otherwise specified, do not exceed 44 fluid ounces of this product per acre when using aerial application equipment. Refer to the individual use area sections of this label for application rates, spray volumes and additional use instructions.

**FOR AERIAL APPLICATION IN ARKANSAS AND CALIFORNIA, OR SPECIFIC COUNTIES THEREIN, REFER TO THE FEDERAL SUPPLEMENTAL LABELING FOR AERIAL APPLICATION OF THIS PRODUCT 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 with aerial application equipment in California. Tank mixtures of this product with 2,4-D amine formulations may be applied by air in California for fallow and reduced tillage systems, and for alfalfa and pasture renovation applications only.

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

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

### **AERIAL SPRAY DRIFT MANAGEMENT**

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications onto 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 must 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 the application is 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 listed 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.



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- **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 can further reduce drift without reducing swath width.
- **Application height:** Application must be made at a height of 10 feet or less above the top of the largest plants unless a greater height is required for aircraft safety. Making the application at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

### Swath Adjustment

When an application is made with a crosswind present, 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. Increase the swath adjustment distance 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. Avoid application when wind speeds are 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

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

Do not apply 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

Apply this product only 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**

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UNCOATED STEEL SURFACES COULD RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) that meets aerospace specification MIL-C-38413 can help prevent corrosion.

**8.2 Ground Application Equipment**

Apply this product at the appropriate rate in 3 to 40 gallons of water per acre when making a broadcast application using ground application equipment, unless otherwise specified on this label or on separate supplemental labeling or Fact Sheets published for this product. As the weed density increases, increase the spray volume towards the upper end of this range to ensure complete coverage. Carefully select proper nozzles to avoid generating a fine mist. For best results with ground application equipment, use flat spray nozzles. Check spray pattern for uniform distribution.

**8.3 Hand-Held and Backpack Sprayers**

Apply to foliage of vegetation to be controlled. For best results, ensure that spray coverage is uniform and complete. Use coarse sprays only. For application made using a spray-to-wet technique, do not spray to the point of runoff. For appropriate spray concentrations and timing, refer to the "ANNUAL WEEDS RATE SECTION" of this label, under Annual Weeds—Handheld and Backpack Sprayers".

**8.4 Selective Application Equipment**

This product may be diluted in water and applied using a shielded sprayer, hooded sprayer, wiper applicator or sponge bar to weeds listed on this label growing in any non-crop site listed on this label.

In cropping systems, a shielded sprayer, hooded sprayer, or wiper applicator may be used in between rows of crop plants (row middles). A wiper applicator may be used over the top of crops only when specifically directed on this label. Selective equipment must be capable of preventing all contact of the herbicide solution with the crop and operated without spray mist escape, leakage or dripping of the herbicide solution onto the crop.

AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION. Contact of this product with desirable vegetation can result in unwanted plant damage or destruction.

**Shielded and Hooded Sprayers**

This product, when applied at rates specified on this label using a shielded or hooded sprayer according to the directions described in this section, will control those weeds listed in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

A hooded sprayer is a type of shielded sprayer where the spray pattern is fully enclosed, including the top, sides, front and back, thereby shielding the crop from the spray solution. Adjust the shields on these sprayers to protect desirable vegetation. When applying around crops grown on raised beds, ensure that the hood is capable of completely enclosing the spray pattern. If necessary, extend the front and rear flaps of the hooded applicator downward to reach the ground in deep furrows. USE EXTREME CARE TO AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION.

Hooded sprayers must be configured and operated in a manner that minimizes bouncing and avoids raising the hood up off the ground surface at any time. If the hood is raised, spray particles can escape and come into contact with the crop, causing damage to or destruction of the crop. Avoid operating this equipment on rough or sloping terrain where the spray hood is likely to rise up off the ground surface.

Use hoods designed to minimize excessive dripping or run-off down the insides of the hoods, such as 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, with a spray volume of 20 to 30 gallons per acre.

These following procedures will reduce the potential for crop injury when using a hooded sprayer:

- Spray hood must be operated on the ground or skimming across the ground surface.

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- 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.)
- Operate at ground speeds of no greater than 5 miles per hour to avoid bouncing of the spray hoods.
- Apply when wind speeds are 10 miles per hour or less.
- Use low-drift nozzles that provide uniform coverage within the treated area.

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

### **Wiper Applicator**

A wiper applicator is a device that physically wipes this product directly onto the weed. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation.

Adjust the height of the wiper applicator to ensure adequate contact with weeds and so that the wiper contact point is at least 2 inches above the desirable vegetation. Better results can be obtained when more of the weed is exposed to the herbicide solution and weeds are a minimum of 6 inches above the desirable vegetation. Weeds not contacted by the herbicide solution will not be affected. Poor contact can occur when weeds are growing in dense clumps, when operating areas of severe weed infestations or when weed height varies dramatically. In these situations, repeat treatments might be necessary.

Operate wiper applicators at a ground speed of no greater than 5 miles per hour. Performance can be improved by reducing speed in areas of heavy weed infestation, which provides more time for re-saturation of the wiper with the herbicide solution. Better results can be obtained when two applications are made in opposite directions.

Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation can result in discoloration, stunting or destruction. Avoid leakage or dripping onto desirable vegetation. Keep wiper surfaces clean. Be aware that on sloping ground the herbicide solution can migrate to one side, causing dripping on the lower end and drying of the wiper on the upper end of the applicator.

Do not use a wiper applicator when weeds are wet.

Mix only the amount of this product to be used during a 1-day period, as reduced product performance can result from the use of solutions held in storage. Clean wiper parts promptly after using this product by thoroughly flushing with water.

Do not add surfactant to the herbicide solution when using a wiper applicator.

**For Rope or Sponge Wick Applicators**—use solutions ranging from 33 to 75 percent of this product in water.

**For Panel Applicators**—use solutions ranging from 33 to 100 percent (undiluted) of this product in water.

### **8.5 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 for use in injection systems.

### **8.6 Controlled Droplet Applicator (CDA)**

The amount of this product applied per acre using a vehicle-mounted controlled droplet applicator (CDA) must be no less than the rate specified on this label for application using conventional broadcast

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application equipment. Apply the appropriate amount of this product in 2 to 15 gallons of water per acre when using a vehicle-mounted CDA.

For control of annual weeds using a hand-held CDA, 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 quart per acre). For the control of perennial weeds, apply a 20- to 30-percent 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 3 quarts per acre).

Controlled droplet applicators produce a spray pattern that is not easily visible. Extreme care must be taken to avoid spray or drift from contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction of the plant could result.

### 9.0 ANNUAL AND PERENNIAL CROPS

**NOTE:** THIS SECTION PROVIDES DIRECTIONS FOR USE OF THIS PRODUCT THAT APPLY TO ALL CROPS LISTED ALPHABETICALLY IN THE SECTIONS THAT FOLLOW. SEE THE INDIVIDUAL CROP SECTIONS FOR SPECIFIC USE INSTRUCTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.

See the "ROUNDUP READY CROPS" section of this label, or separately published supplemental labeling for this product, for instructions on applications in Roundup Ready crops.

**TYPES OF APPLICATION:** Chemical Fallow, Preplant Fallow Beds, Preplant, At-Planting, Preemergence, Hooded Sprayer in Row Middles, Shielded Sprayer in Row Middles, Wiper Applicator in Row Middles, Post-Harvest

**USE INSTRUCTIONS:** Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergence to annual and perennial crops listed on this label, except where specifically limited. For any crop not listed in this label, application must be made at least 30 days prior to planting. Unless otherwise specified, apply this product according to the rates listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH AND TREES RATE SECTION" of this label. Application rates specified on this label for the control of tough weeds, or those specified on separate supplemental labeling for this product, supersede the rates in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH AND TREES RATE SECTION" of this label. Additional information on the control of tough weeds can be found in Fact Sheets published for this product.

Repeat applications may be made up to a maximum of 5.3 quarts of this product per acre per year.

Hooded sprayers and wiper applicators capable of preventing all contact of the herbicide solution with the crop may be used in mulched or unmulched row middles after crop establishment. Wiper applicators may be used over the top of crops to control tall weeds only when specifically directed in the individual crop sections that follow. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for essential precautions regarding crop injury using selective application equipment. Crop injury is possible with these types of application and shall be the sole responsibility of the applicator.

All treatments described in the sections that follow may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label and on all supplemental labeling published for this product. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information on aerial application and procedures for avoiding spray drift that could cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

**TANK MIXTURES:** 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. Use all products according to rates and timing specified on

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the label. Some tank-mix products have the potential to cause crop injury. Read the label for all products in the tank mixture prior to use to determine the potential for crop injury. Always predetermine the compatibility of tank-mix products together in the carrier by mixing small proportional quantities in advance. Mixing other products with this herbicide in the spray tank can cause incompatibility, antagonism, or a reduction in the efficacy of this product. Monsanto has not tested all product formulations for compatibility or performance in a tank-mix. Buyer and all users are responsible for any and all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not specifically identified on this labeling, or on separate supplemental labeling or Fact Sheets for this product. See the "MIXING" section of this label for more information on tank mixtures.

**PRECAUTIONS, RESTRICTIONS:** Avoid contact of this herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops, as severe crop injury or destruction can result. When making at-planting and preemergence applications, application must be made before crop emergence to avoid severe crop injury. Broadcast application made at emergence will result in injury or death of emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. Unless otherwise specified on this label, treatment with selective equipment, including wiper applicators 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 crop not listed on this label. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

In crops where spot treatment is allowed, do not treat more than 10 percent of the total field to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

Do not harvest or feed treated vegetation for 8 weeks following broadcast postemergence application, unless otherwise specified.

Observe the maximum application rates stated throughout this label. Maximum application rates apply to the use of this product combined with the use of any and all other herbicides containing glyphosate as the active ingredient, whether applied separately or as mixtures. Calculate the application rates (glyphosate acid equivalents) and ensure that the total use of this and other glyphosate-containing products does not exceed the stated maximum rate. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**9.1 Cereal and Grain Crops**

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

**TYPES OF APPLICATION:** Those listed in Section 9.0, plus Red Rice Control Prior to Planting Rice, Spot Treatment (except Rice), Wiper Applicator (Feed Barley and Wheat Only), Preharvest (Feed Barley and Wheat Only)

**Preplant, At-Planting, Preemergence**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting of cereal crops, but prior to crop emergence.

**Red Rice Control Prior to Planting Rice**

**USE INSTRUCTIONS:** Flush fields prior to application to obtain uniform germination and stand of red rice, and then apply 32 fluid ounces of this product in 5 to 10 gallons of water per acre when the majority of the red rice plants are at the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves might only be partially controlled.

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PRECAUTIONS, RESTRICTIONS: Avoid spraying during conditions of low humidity, as reduced control could result. Do not treat rice fields or levees when fields contain floodwater. Do not 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, except rice. Apply this product before heading in small grains.

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

**Wiper Applicator (Feed Barley and Wheat Only)**

USE INSTRUCTIONS: This product may be applied over the top of feed barley and wheat using a wiper applicator. To control common rye or cereal rye, apply after weeds have headed and achieved maximum growth. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

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 feed barley and wheat. For feed barley, apply after the hard-dough stage when the grain contains 20 percent moisture or less. For wheat, apply after the hard-dough stage when the grain contains 30 percent moisture or less. Stubble may be grazed immediately after harvest.

Apply this product in 10 to 20 gallons of water per acre when using ground application equipment and in 3 to 10 gallons of water per acre when using aerial application equipment.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 22 fluid ounces of this product per acre for preharvest application. Allow 7 days between application and harvest or grazing. Preharvest application on barley or wheat grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on barley or wheat grown for seed.

**Post-Harvest**

USE INSTRUCTIONS: This product may be applied for weed control after harvest of cereal crops. Higher rates might be required to control large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the specific product being used is labeled for weed control following harvest of cereal crops. Read and follow label directions of all products in the tank mixture.

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

**9.2 Corn**

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

TYPES OF APPLICATION: Those listed in Section 9.0, plus Spot Treatment, Preharvest

For use directions with corn hybrids with Roundup Ready 2 Technology (including Roundup Ready Corn 2 and products displaying the Roundup Ready 2 Technology logo), see the "ROUNDUP READY CROPS" section of this label.

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**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied alone or in a tank-mix before, during or after planting corn, but prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with the following products. Ensure that the specific product being used is labeled for application prior to the planting or the emergence of corn. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water, or 10 to 60 gallons of nitrogen solution, per acre.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to corn:*

2,4-D, acetochlor, alachlor, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, dimethenamid, dimethenamid-p, flufenacet, flumetsulam, flumiclorac pentyl ester, isoxaflutole, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, rimsulfuron, saflufenacil, simazine

Aim, Aim EC, Axiom, Balance, Balance PRO, Banvel, Bicep MAGNUM, Bicep II MAGNUM, Bicep Lite II MAGNUM, Bullet, Cinch, Cinch ATZ, Clarity, Define, Degree, Degree Xtra, Distinct, Dual MAGNUM, Dual II MAGNUM, Epic, Frontier, FulTime, Guardsman, Guardsman MAX, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Keystone, Keystone LA, Lariat, Leadoff, Linex, Lorox, Marksman, Me-Too-Lachlor II, Micro-Tech, Outlook, Prowl, Python, Python II, Radius, Resolve, Resource, Shark, Sharpen, Simazine, Stalwart, Stalwart C, Stalwart Xtra, Surpass, TopNotch]

For tough-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 22 fluid ounces per acre in these tank mixtures. For other annual weeds listed on this label, apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 22 to 32 fluid ounces per acre when weeds are over 6 inches tall. When using nitrogen solution as the carrier, a higher application rate might be needed for acceptable weed control.

PRECAUTIONS, RESTRICTIONS: Application of 2,4-D or dicamba must be made at least 7 days prior to planting corn. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

In Southern states, do not apply this product in nitrogen solutions to tough-to-control grasses, such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds. This area includes Illinois and Indiana south of Route 50, Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

**Hooded Sprayer**

USE INSTRUCTIONS: This product may be applied using a hooded sprayer for weed control in between rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions on 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 could cause damage. Such damage shall be the sole responsibility of the applicator. Do not apply more than 22 fluid ounces of this product per acre for each hooded sprayer application and no more than 64 fluid ounces per acre per year total.

**Spot Treatment**

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USE INSTRUCTIONS: This product may be applied as a spot treatment prior to silking of corn.

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

**Preharvest**

USE INSTRUCTIONS: Make application 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 application, apply up to 64 fluid ounces of this product per acre. For aerial application, apply up to 44 fluid ounces of this product per acre.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest. Preharvest application on corn grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on corn grown for seed.

**Post-Harvest**

USE INSTRUCTIONS: This product may be applied for weed control after harvest of corn. Higher rates might be required to control large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the specific product being used is labeled for post-harvest application in corn. Read and follow label directions of all products in the tank mixture.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation. Application of this product must be made at least 30 days prior to planting any crop not listed on this label. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**9.3 Cotton**

TYPES OF APPLICATION: Those listed in Section 9.0, plus Selective Equipment, Spot Treatment, Preharvest

For use directions with Roundup Ready cotton and Roundup Ready Flex cotton, see the "ROUNDUP READY CROPS" section of this label.

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied before, during or after planting cotton, but prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with 2,4-D and Clarity and applied prior to planting cotton only. This product may also be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to planting or the emergence of cotton. Read and follow label directions for all products used in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water per acre.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to cotton:*

clomazone, diuron, fluometuron, fomesafen, metolachlor, s-metolachlor, norflurazon, pendimethalin, prometryn, pyriithiobac-sodium, saflufenacil

Caparol, Command, Cotoran, Cotton Pro, Direx, Dual MAGNUM, Dual II MAGNUM, Karmex, Meturon, PARRLAY, Prowl, Prowl H2O, Reflex, Sharpen, Stalwart, Staple, Valor, Zorial]



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PRECAUTIONS, RESTRICTIONS: Refer to individual tank-mix product labels for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the mixture.

**Selective Equipment**

USE INSTRUCTIONS: This product may be applied using a hooded sprayer, shielded sprayer, or wiper applicator over the top of cotton. See additional instructions on the use of this selective equipment in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest.

**Spot Treatment**

USE INSTRUCTIONS: This product may be applied in cotton as a spot treatment prior to boll opening.

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

**Preharvest**

USE INSTRUCTIONS: This product provides weed control and cotton re-growth inhibition when applied prior to harvest. For weed control, apply at rates given in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. For cotton re-growth inhibition, apply 16 to 44 fluid ounces of this product per acre. Apply after sufficient bolls have developed to produce the desired yield. Applications made prior to this time could affect maximum yield potential.

TANK MIXTURES: This product may be tank-mixed with DEF 6, Dropp, Folex, Ginstar, or Prep to provide additional enhancement of cotton leaf-drop. Read and follow label directions for all products used in the tank mixture.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest. Preharvest application on cotton grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on cotton grown for seed. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PREHARVEST APPLICATION TO COTTON.

**9.4 Fallow Systems**

This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, application must be made at least 30 days prior to planting.

TYPES OF APPLICATION: Chemical Fallow, Preplant Fallow Beds, Aid-to-Tillage

**Chemical Fallow**

USE INSTRUCTIONS: This product may be used as a substitute for tillage to control annual weeds in fallow fields. Broadcast or spot treatment application will also control or suppress many perennial weeds in fallow fields. Tank-mix this product with 2,4-D or dicamba for a broader weed control spectrum. Aerial application of up to 44 fluid ounces per acre may be made onto fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

PRECAUTIONS, RESTRICTIONS: Refer to individual tank-mix product labels for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. Some crop injury may occur if dicamba is applied within 45 days of planting.

**Preplant Fallow Beds**

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USE INSTRUCTIONS: This product will control weeds listed in the "ANNUAL WEEDS RATE SECTION", "PERENNIAL WEEDS RATE SECTION" and WOODY BRUSH AND TREES RATE SECTION" of this label prior to planting.

TANK MIXTURES: Use 8 fluid ounces of this product, plus 2 to 3 fluid ounces of Goal 2XL, per acre to control the following weeds up to the maximum height or length indicated: 3 inches—common cheeseweed, chickweed, groundsel; 6 inches—London rocket, shepherd's-purse.

Apply 11 fluid ounces of this product, plus 2 to 3 fluid ounces of Goal 2XL, per acre to control the following weeds up to the maximum height or length indicated: 6 inches—common cheeseweed, groundsel, marestalk (*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 crops listed on this label, to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product in 3 to 10 gallons of water per acre before weeds are 6 inches in height. Application must be followed by conventional tillage no later than 15 days after treatment and before re-growth occurs. Allow at least 1 day after application before tillage.

PRECAUTIONS, RESTRICTIONS: Tank mixtures with residual herbicides could result in reduced performance of this product.

**9.5 Grain Sorghum (Milo)**

TYPES OF APPLICATION: Those listed in Section 9.0, plus Spot Treatment, Wiper Applicator, Preharvest

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied alone or in tank mixture before, during or after planting grain sorghum, but prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with the following products. Ensure that the specific product being used is labeled for application prior to planting or emergence of grain sorghum. Read and follow label directions for all products used in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to grain sorghum:*

alachlor, atrazine, metolachlor, s-metolachlor, saflufenacil

Bicep II MAGNUM, Bullet, Dual II MAGNUM, INTRRO, Lariat, Micro-Tech, Sharpen]

For tough-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 at 22 fluid ounces of this product per acre in a tank mixture with one of the products listed above.

For control of other annual weeds listed on this label, apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall and 22 to 32 fluid ounces per acre when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the application rate might need to be increased to achieve adequate weed control.

PRECAUTIONS, RESTRICTIONS: Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**Spot Treatment, Wiper Applicator**

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## II. MAIN LABEL FOR FOOD CROP USES

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in grain sorghum before heading. This product may also be applied over the top of grain sorghum using a wiper applicator to control or suppress tall weeds. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS, RESTRICTIONS:** For spot treatment, do not treat more than 10 percent of the total field area to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

When applied using a wiper applicator, allow at least 40 days between application and harvest. Do not use roller applicator. Do not feed or graze treated grain sorghum fodder. Do not ensile treated vegetation.

### **Hooded Sprayer**

**USE INSTRUCTIONS:** This product may be applied using a hooded sprayer for weed control in between rows of grain sorghum. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions on the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS, RESTRICTIONS:** Grain sorghum must be at least 12 inches tall, measured without extending leaves. Treat before grain sorghum sends tillers between the drill rows. If tillers are sprayed with this herbicide, the main plant could be damaged or destroyed. Contact of this product in any manner on any vegetation to which treatment is not intended could cause damage. Such damage shall be the sole responsibility of the applicator. Do not graze or feed grain sorghum forage or fodder following applications of this product using a hooded sprayer. Do not apply more than 22 fluid ounces of this product per acre per hooded sprayer application and no more than 64 fluid ounces per acre per year total.

### **Preharvest**

**USE INSTRUCTIONS:** This product may be applied prior to harvest after sorghum grain has reached 30 percent moisture or less.

**PRECAUTIONS, RESTRICTIONS:** Do not apply more than 44 fluid ounces of this product per acre. As with other herbicides that cause sudden plant death, avoid preharvest application of this product to milo infected with charcoal rot as lodging can occur. Allow a minimum of 7 days between application and harvest of grain sorghum. Preharvest application on sorghum grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on sorghum grown for seed. Preharvest application of this product on grain sorghum (milo) is not registered for use in California.

### **Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied for weed control after harvest of grain sorghum. Higher rates might be required to control large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the specific product being used is labeled for post-harvest application in grain sorghum (milo). Read and follow label directions of all products in the tank mixture.

This product may be applied to grain sorghum stubble following harvest to control or suppress re-growth. Apply 22 fluid ounces of this product per acre for control, or 16 fluid ounces of this product per acre for suppression.

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or the feeding of treated vegetation. Application must be made at least 30 days prior to planting any crop not listed on this label. Refer to each individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

## **9.6 Herbs and Spices**

II. 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 APPLICATION: Those listed in Section 9.0, plus Spot Treatment (Peppermint and Spearmint Only), Wiper Applicator (Peppermint and Spearmint only)

PRECAUTIONS, RESTRICTIONS: This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Remove residual product from the plastic prior to planting with a single 0.5-inch application of water, either by natural rainfall or by irrigation. Ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes. Application made at crop emergence will result in injury or death to emerged seedlings.

**Spot Treatment, Wiper Applicator (Peppermint and Spearmint Only)**

USE INSTRUCTIONS: This product may be applied as a spot treatment in peppermint and spearmint, or over the top of peppermint and spearmint using a wiper applicator to control tall weeds. Make spot treatment application on a spray-to-wet basis using hand-held equipment, such as a backpack sprayer, pump-up pressure sprayer, a handgun, handwand or any other hand-held or motorized spray equipment capable of directing the spray solution to a limited area. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS, RESTRICTIONS: Application may be repeated in the same area at 30-day intervals. Allow at least 7 days between application and harvest. For spot treatment application, do not treat more than 10 percent of the total field area to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction. When using a wiper applicator, droplets, mist, foam or splatter of the herbicide solution onto desirable vegetation could result in discoloration, stunting or destruction.

**9.7 Oil Seed Crops**

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

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

TYPES OF APPLICATION: Those listed in Section 9.0 plus Preharvest (Safflower and Sunflower Only)

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product for use in canola, safflower and sunflower. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

Maximum Application Rates	
<b>Canola</b>	
Combined total for all Preemergence and Shielded Sprayer applications	44 fluid ounces per acre
<b>Safflower</b>	

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II. MAIN LABEL FOR FOOD CROP USES

Combined total for all Preemergence and Shielded Sprayer applications	64 fluid ounces per acre
Preharvest application	64 fluid ounces per acre
<b>Sunflower</b>	
Combined total for all Preemergence and Shielded Sprayer applications	22 fluid ounces per acre
Preharvest application	22 fluid ounces per acre

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied before, during or after planting oil seed crops listed in this section, but prior to crop emergence. Observe the maximum application rates for canola, safflower and sunflower listed at the beginning of this section.

TANK MIXTURES: For sunflowers, a tank mixture with pendimethalin [optional text: Prowl herbicide] may be applied before, during or after planting into conventionally tilled soil, a cover crop, established sod or previous crop residue.

**Selective Equipment**

USE INSTRUCTIONS: This product may be applied using a wiper applicator or shielded sprayer in between rows once the crop is established. See additional instructions on the use of wiper applicators and hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. Observe the maximum application rates for canola, safflower and sunflower listed at the beginning of this section.

**Preharvest (Safflower and Sunflower Only)**

USE INSTRUCTIONS: This product provides weed control as a harvest aid when applied to a physiologically mature crop of safflower and sunflower prior to harvest. For safflower, apply a maximum of 64 fluid ounces of this product when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches. For sunflower, apply a maximum of 22 fluid ounces of this product when the backsides of sunflower heads are yellow and bracts are turning brown, and seed moisture content is less than 35 percent.

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

**Post-Harvest**

USE INSTRUCTIONS: This product may be applied for weed control after harvest of oil seed crops. Higher rates might 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. Ensure that the specific product being used is labeled for post-harvest application in the crop harvested. Read and follow label directions of all products in the tank mixture.

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

**9.8 Soybean**

**TYPES OF APPLICATION:** Those listed in Section 9.0, plus Spot Treatment, Selective Equipment, Preharvest

II. MAIN LABEL FOR FOOD CROP USES

For use directions with Roundup Ready soybean and Roundup Ready 2 Yield soybean, see the "ROUNDUP READY CROPS" section of this label.

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied alone or in a tank-mixture before, during or after planting soybean, but prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with 2,4-D, Banvel or Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to planting or the emergence of soybean. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water per acre.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to soybean:*

alachlor, atrazine, carfentrazone-ethyl, chlorimuron ethyl, clethodim, clomazone, cloransulam-methyl, dimethenamid, dimethenamid-p, fenoxypyr, fluazifop-p-butyl, flufenacet, flumetsulam, flumiclorac pentyl ester, flumioxazin, fomesafen, imazaquin, imazethapyr, lactofen, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, quizalofop P-ethyl, saflufenacil, sulfentrazone, tribenuron methyl, trifluralin

Aim, Assure II, Authority, Authority Assist, Authority First, Authority MTZ, Axiom, Blanket, Boundary, Canopy, Canopy EX, Classic, Cobra, Command, Command Xtra, Domain, Dual MAGNUM, Dual II MAGNUM, FirstRate, Flexstar, Frontier, Fusion, Gangster, Gauntlet, INTRRO, Lexone, Linex, Linuron, Lorox, Lorox Plus, Me-Too-Lachlor, Micro-Tech, Optill, Outlook, PARRLAY, Pendimax, Prowl, Prowl H2O, Pursuit, Pursuit Plus, Python, Reflex, Resource, Scepter, Select, Select MAX, Sencor, Sharpen, Spartan, Squadron, Steel, Treflan, Valor, Valor XLT]

For tough-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 22 fluid ounces per acre in these tank mixtures. For other annual weeds listed on this label, apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall and 22 to 32 fluid ounces per acre when weeds are over 6 inches tall.

PRECAUTIONS, RESTRICTIONS: Refer to individual tank-mix product label for restrictions and precautions, use according to the most restrictive precautionary statements for each product in the tank mixture.

**Spot Treatment**

USE INSTRUCTIONS: This product may be applied as a spot treatment prior to initial pod set in soybean.

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

**Selective Equipment**

USE INSTRUCTIONS: This product may be applied in soybean using a shielded applicator, hooded sprayer, wiper applicator or sponge bar. See additional instructions on the use of selective equipment in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest.

II. MAIN LABEL FOR FOOD CROP USES

**Preharvest**

USE INSTRUCTIONS: This product may be applied to soybean prior to harvest after pods have set and lost all green color. Apply at rates given in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 3.3 quarts of this product per acre for preharvest application. Do not apply more than 44 fluid ounces of this product per acre by air. Take care to avoid excessive seed shatter loss due to ground application equipment. Allow a minimum of 7 days between application and harvest of soybean. If the preharvest application rate is greater than 22 fluid ounces per acre, do not graze or harvest treated hay or fodder for livestock feed within 25 days of application. If the preharvest application rate is 22 fluid ounces per acre or lower, the grazing restriction is reduced to 14 days after application. Preharvest application on soybean grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on soybean grown for seed.

**9.9 Sugarcane**

TYPES OF APPLICATION: Those listed in Section 9.0, plus Spot Treatment, Sugarcane Ripening

**Preplant, At-Planting, Preemergence**

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, apply a 1-percent solution of this product in water using a spray-to-wet technique. Best results are obtained on volunteer or diseased sugarcane with at least 7 new leaves.

PRECAUTIONS, RESTRICTIONS: Avoid contact of this herbicide with healthy sugarcane plants as severe damage or destruction can result. Do not feed or graze treated sugarcane foliage following application.

**Fallow Treatment**

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 by applying 2.5 to 3.3 quarts 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. Aerial application of up to 64 fluid ounces per acre may be made onto fallow sites where there is sufficient buffer to prevent drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used. Ensure that the specific tank-mix product being used is labeled for this application in sugarcane. Read and follow label directions of all products in the tank mixture.

**Hooded Sprayer**

USE INSTRUCTIONS: This product may be applied using a hooded sprayer for weed control in between rows of sugarcane. See additional instructions on the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

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

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## II. MAIN LABEL FOR FOOD CROP USES

### 9.9.1 Sugarcane Ripening

This product is a foliar-applied 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.

Most of the sucrose increase is concentrated in the top nodes of the treated cane stalk. To maximize sugar recovery where topping is practiced at 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.

#### APPLICATION RATES:

Use the following application rates and timing instructions according to the State in which the sugarcane is grown.

**NOTE:** Use the higher rate within the given range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

**FLORIDA**—Apply 5 to 12 fluid ounces of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.

**HAWAII**—Apply 9 to 21 fluid ounces of this product per acre 4 to 10 weeks before harvest.

**LOUISIANA**—Apply 4 to 12 fluid ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

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

**TEXAS**—Apply 5 to 12 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

**PRECAUTIONS, RESTRICTIONS:** Application of this product could initiate development of shooting eyes. This product might not increase the sucrose content of sugarcane under conditions of good natural ripening. Within 2 to 3 weeks after application, this product could produce a slight yellowing to a pronounced browning and drying of leaves, and a shortening of upper internodes. Spindle death could occur.

Rainfall within 6 hours after application could reduce effectiveness.

Application to sugarcane grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on sugarcane grown for seed.

Do not feed or graze treated sugarcane forage following application. Do not plant subsequent crops in treated fields within 30 days after application other than the following: alfalfa or other forage legumes, beans (all types), corn (all types), cotton, melons (all types), pasture grasses, peanuts, potatoes (Irish or sweet), sorghum (milo), soybean, squash (all types) or wheat.

Do not apply for enhanced ripening to any crops other than sugarcane. Use of this product in any manner not consistent with this label could result in injury to persons, animals or crops, or other unintended consequences.

### 9.10 Vegetable Crops



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## II. MAIN LABEL FOR FOOD CROP USES

**NOTE:** THIS "VEGETABLE CROPS" SECTION PROVIDES DIRECTIONS FOR USE THAT APPLY TO ALL VEGETABLE CROPS LISTED ALPHABETICALLY IN THE SECTIONS THAT FOLLOW. SEE THE INDIVIDUAL CROP SECTIONS FOR SPECIFIC USE INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

**TYPES OF APPLICATION:** Chemical Fallow, Preplant Fallow Beds, Preplant, At-Planting, Preemergence, Prior to Transplanting Vegetables, Hooded Sprayer in Row Middles, Shielded Sprayer in Row Middles, Wiper Applicator in Row Middles, Directed Application (Non-Bearing Ginseng), Wiper Applicator (Rutabagas Only), Post-Harvest

**PRECAUTIONS, RESTRICTIONS:** This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Remove residual product from the plastic prior to planting with a single 0.5-inch application of water, either by natural rainfall or by irrigation. Ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes. Application of this product at crop emergence will result in injury or death to emerged seedlings.

Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops, as severe crop injury or destruction could result. Preemergence application 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 crop injury. In crops with vines, make hooded sprayer, shielded sprayer and wiper applicator treatments to row middles prior to vine development, otherwise severe crop injury or destruction could result. Unless otherwise specified on this label, applications using selective equipment, including wiper applicators and hooded sprayers, must be made at least 14 days prior to harvest. Post-harvest and fallow applications must be made at least 30 days prior to planting any crop not listed on this label. See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

### 9.10.1 Brassica Vegetables

**LABELED CROPS:** Broccoli, Chinese broccoli (gai lan), 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

### 9.10.2 Bulb Vegetables

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

### 9.10.3 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.

### 9.10.4 Leafy Vegetables

II. MAIN LABEL FOR FOOD CROP USES

LABELED CROPS: Amaranth (Chinese spinach), Arugula (roquette), Beet greens, Cardoon, Celery, Chinese celery, Celtuce, 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, do not apply within 3 days prior to seeding or during the period between seeding and emergence to minimize the risk of crop injury.

**9.10.5 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 and tomatillo grown on sandy soil, do not apply using hooded or shielded sprayers in row-middles because of the potential for crop injury.

**9.10.6 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

TYPES OF APPLICATION: Those listed in Section 9.0, plus Spot Treatment (Dry Beans, Peas, Lentils, and Chickpeas Only), Preharvest (Dry Beans, Peas, Lentils, and Chickpeas Only)

**Spot Treatment (Dry Beans, Peas, Lentils and Chickpeas Only)**

USE INSTRUCTIONS: This product may be applied as a spot treatment to control troublesome weeds such as Canada thistle, quackgrass, mayweed (dog fennel), and milkweed in dry beans, peas, lentils and chickpeas. Apply up to 22 fluid ounces of this product per acre in dry beans, or up to 64 fluid ounces per acre in dry peas, lentils and chickpeas, in 10 to 20 gallons of water using ground application equipment, or use a 2-percent solution in a hand-held sprayer. For best results, apply at or beyond the bud stage of growth.

PRECAUTIONS, RESTRICTIONS: Apply at least 7 days before harvest. Only one application may be made per year. Do not combine spot treatment with a preharvest broadcast spray application on the same crop area. Observe at least a 30-day plant-back interval between treatment and replanting for any crop not listed in this label. Do not feed treated vines and hay to livestock. Do not treat cowpeas or field (feed) peas, since these crops are considered to be grown as livestock feed. Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

**Preharvest (Dry Beans, Peas, Lentils and Chickpeas Only)**

USE INSTRUCTIONS: This product may be applied over the top of dry beans, peas, lentils and chickpeas prior to harvest. Apply up to 22 fluid ounces of this product per acre in dry beans, or up to 64 fluid ounces per acre in dry peas, lentils, and chickpeas, in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30 percent grain moisture or less).

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## II. MAIN LABEL FOR FOOD CROP USES

**PRECAUTIONS, RESTRICTIONS:** Apply at least 7 days before harvest. Only one preharvest application may be made per year. Do not combine a preharvest application with a spot treatment application on the same crop area. Observe at least a 30-day plant-back interval between treatment and planting of any crop not listed on this label. Do not feed treated vines and hay to livestock. Preharvest application on legumes grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on legumes grown for seed. Do not treat cowpeas or field (feed) peas, since these crops are considered to be grown as livestock feed.

### 9.10.7 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 Application (Non-Bearing Ginseng Only)

**USE INSTRUCTIONS:** This product may be applied for weed control in established non-bearing ginseng. Application may be made with boom sprayer equipment, CDA, a shielded sprayer, wiper applicator, a hand-held or backpack wand, lance, or orchard gun. See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS, RESTRICTIONS:** Application must be made at least one year prior to harvest. Control the application so as not to allow any contact of this product with the ginseng plant. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation could result in discoloration, stunting or destruction.

#### Wiper Applicator (Rutabagas Only)

**USE INSTRUCTIONS:** A wiper applicator may be used over the top of rutabagas for the control of tall weeds. See additional use instructions for wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS, RESTRICTIONS:** Allow at least 14 days between application and harvest of rutabagas. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation could result in discoloration, stunting or destruction.

### 9.11 Miscellaneous Crops

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

**TYPES OF APPLICATION:** Those listed in Section 9.0, plus Spot Weed Control, Site Preparation, Spot Treatment (Asparagus), Post-Harvest (Asparagus)

For use directions with Roundup Ready sugarbeet, see the "ROUNDUP READY CROPS" section of this label.

**PRECAUTIONS, RESTRICTIONS:** Avoid contact of this product with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops, as severe crop injury or destruction could result. Preemergence application 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 crop injury. In crops with vines, make hooded sprayer, shielded sprayer and wiper applicator treatments in row middles prior to vine development, otherwise severe crop injury or destruction could result. Unless otherwise specified on this label, application using selective equipment, including wiper applicators and

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hooded sprayers, must be made at least 14 days prior to harvest. Post-harvest or fallow application must be made at least 30 days prior to planting any crop not listed on this label. See additional information in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

### Spot Weed Control, Site Preparation

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

**PRECAUTIONS, RESTRICTIONS:** This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Remove residues of this product from the plastic prior to planting with a single 0.5-inch application of water, either by natural rainfall or by irrigation. Ensure that the wash water flushes off the plastic mulch and does not enter transplant holes. Allow at least 21 days between residue removal and transplanting. Application of this product at crop 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 for weed control after the last harvest of asparagus and all spears have been removed. If spears are allowed to re-grow, delay application until ferns have developed and make the application as a directed or shielded spray in order to avoid contact of this product with ferns, stems or spears. See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS, RESTRICTIONS:** Direct contact of this product with asparagus could result in serious crop injury.

## 10.0 TREE, VINE AND SHRUB CROPS

**NOTE:** THIS SECTION PROVIDES DIRECTIONS FOR USE THAT APPLY TO ALL TREE, VINE, AND SHRUB CROPS LISTED ALPHABETICALLY IN THE SECTIONS THAT FOLLOW. SEE THE INDIVIDUAL CROP SECTIONS FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

**TYPES OF APPLICATION:** Preplant (Site Preparation), Broadcast Spray, Site Weed Control, Middles (in between rows of trees, vines or bushes), Strips (within rows of trees, vines or bushes), Selective Equipment (shielded sprayer, wiper applicator), Directed Spray, Spot Treatment, Perennial Grass Suppression, Cut Stump

This product may be applied using boom sprayer equipment, CDA, shielded sprayer, wiper applicator, hand-held or backpack wand, lance, or orchard gun, unless specifically prohibited in the specific crop sections that follow.

**USE INSTRUCTIONS:** This product may be applied in middles (in between rows of trees or vines), strips (within rows of trees or vines), and for 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 11 fluid ounces to 3.3 quarts of this product per acre as

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directed in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. Use the higher application rates within the given range when weeds are stressed, growing in dense populations or greater than 12 inches tall. Repeat applications may be made up to a maximum of 7 quarts per acre per year. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**PRECAUTIONS, RESTRICTIONS:** Use extreme care to avoid contact of this herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of trees, canes and vines. Avoid application when recent pruning wounds or other mechanical injury have occurred. Contact of this product with other than matured brown bark could result in serious crop damage or destruction. Only shielded or directed sprayers may be used in crops where potential for crop contact is high, and then only where there is sufficient clearance. For application in strips (within rows of trees), only selective equipment (directed sprayer, hooded sprayer, shielded sprayer, or wiper applicator) may be used in order to minimize the potential for overspray or drift of this product onto the crop. For berry crops, hooded sprayers must be fully enclosed including top, sides, front and back. Only wiper applicators or shielded sprayers capable of preventing all contact of this product with the crop may be used. See additional use instructions and precautions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Allow a minimum of 3 days between application and transplanting.

### **Middles (in between rows)**

**USE INSTRUCTIONS:** This product will control or suppress annual and perennial weeds, and ground covers, growing in between rows of tree and vine crops listed on this label. If weeds are under drought stress, irrigate prior to application. Reduced weed control could result if weeds have been recently mowed at the time of application.

**TANK MIXTURES:** A tank mixture of this product plus Goal 2XL may be applied for annual weed control in between rows (middles) of citrus crops, tree fruits, tree nuts and vine crops when weeds are stressed or growing in dense populations. Application of 11 to 22 fluid ounces of this product, plus 3 to 12 fluid ounces of Goal 2XL, per acre will control annual weeds with a maximum height or length 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). This tank mixture will also control common cheeseweed (malva) or hairy fleabane with a maximum height or length of 3 inches. Read and follow label directions for all products in the tank mixture.

This product may also be applied to row middles in tank mixtures with the following products. Ensure that the specific product being used is labeled for application to the crop to be treated. Read and follow label directions of all products in the tank mixture.

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*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use in middles (in between rows) of tree, vine and shrub crops:*

bromacil, diuron, flumioxazin, napropamide, norflurazon, oryzalin, oxyfluorfen, pendimethalin, simazine

Devrinol 50-DF, Direx 4L, Goal 2XL, Karmex DF, Karmex II DF, Prowl, Princep Caliber 90, Simazine 4L, Simazine 80W, Sim-Trol 4L, Solicam DF, Surflan AS, Surflan 75W]

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### **Strips (within rows)**

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**TANK MIXTURES:** This product may be applied within rows of tree or vine crops in tank mixtures with the following products. Ensure that the specific product being used is labeled for this use and with the tree or vine crop being grown. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use in strips (in rows) of tree, vine and shrub crops:*

bromacil, diuron, flumioxazin, napropamide, norflurazon, oryzalin, oxyfluorfen, pendimethalin, simazine

Devrinol 50-DF, Direx 4L, Goal 2XL, Karmex DF, Karmex II DF, Prowl, Princep Caliber 90, Simazine 4L, Simazine 80W, Sim-Trol 4L, Solicam DF, Surflan AS, Surflan 75W]

**PRECAUTIONS, RESTRICTIONS:** Do not apply these tank mixtures in Puerto Rico. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

### **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 4 fluid ounces of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 4 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 then 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 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 2 to 3 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of bermudagrass, apply 22 to 44 fluid ounces 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 prior to harvest to ensure sufficient time for burndown to occur.

For suppression of bermudagrass, apply 4 to 11 fluid ounces of this product per acre east of the Rocky Mountains and 11 fluid ounces of this product per acre west of the Rocky Mountains 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 re-growth occurs and bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, apply 4 to 7 fluid ounces of this product per acre in shaded conditions or where a lesser degree of suppression is desired.

### **Cut Stump Application**

**USE INSTRUCTIONS:** Application of this product to freshly cut stumps may be made during site preparation or site renovation prior to transplanting tree crops. This product will control the re-growth and re-sprouting of stumps of many types of tree species, some of which are listed below.

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

Cut the tree or re-sprout close to the soil surface and immediately apply a 50- to 100-percent solution of this product to the freshly cut surface using application equipment capable of covering the entire cambium. A delay in application could result in reduced performance. For best results, cut the woody brush or tree during period of active growth and full leaf expansion and apply this treatment.

**PRECAUTIONS, RESTRICTIONS:** DO NOT MAKE A CUT STUMP APPLICATION WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MIGHT BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING COULD OCCUR IN ADJACENT TREES. Some sprouts, stems, or trees can share a common root system. Adjacent trees having a similar age, height and spacing could be an indicator of a shared root system. Whether grafted or shared, injury is likely to occur to non-treated stems or trees when one or more trees sharing a common root system are treated.

### 10.1 Berry Crops

**LABELLED 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, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Salal

**TYPES OF APPLICATION:** Those listed in Section 10.0, plus Spot Treatment in Cranberry Production, Post-Harvest in Cranberry Production

**PRECAUTIONS, RESTRICTIONS:** To avoid damage, herbicide spray must not be allowed to contact desirable vegetation, including green shoots, canes or foliage. Allow a minimum of 30 days between last application and harvest of cranberries. Allow a minimum of 14 days between last application and harvest of other berry crops.

#### Spot Treatment in Cranberry Production

**USE INSTRUCTIONS:** Spot treatment may be made to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. A hand-held sprayer or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label may be used. Drop water level to remove standing water in ditches prior to application. With a hand-held sprayer, apply a 1- to 1.5-percent solution of this product adequately to wet the vegetation only; do not spray to the point of run-off.

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

#### Post-Harvest Treatment in Cranberry Production

**USE INSTRUCTIONS:** This product may be applied after the harvest of cranberries to control weeds growing in the field. Apply this product to vines that appear dormant (after they have turned red) using a

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hand-held sprayer, wiper applicator, or any other appropriate application equipment listed in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. With a hand-held sprayer, apply a 0.4- to 0.7-percent solution of this product and spray adequately to wet the vegetation only; do not spray to the point of run-off. With a hand-held boom sprayer, apply 44 to 86 fluid ounces of this product per acre.

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

**10.2 Citrus**

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

**TYPES OF APPLICATION:** Those listed in Section 10.0

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

The following use instructions pertain to applications in Florida and Texas only.

For burndown or control of the weeds listed below, apply this product at the specified rate 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 44 to 64 fluid ounces of this product in 20 to 30 gallons of water per acre when plants are actively growing. Apply 44 fluid ounces per acre when plants are less than 8 inches tall and 64 fluid ounces per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the use of this product in a tank mixture with Krovar I or Karmex could improve weed control. Refer to the individual product labels for listing of specific crops, rates, geographic restrictions and precautionary statements.

**Perennial weeds:**

S = Suppression

B = Burndown

PC = Partial control

C = Control

WEED SPECIES	[INSERT BRAND NAME] RATE PER ACRE			
	0.7 QT	1.3 QT	2 QT	3.3 QT
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

**10.3 Miscellaneous Tree Food Crops**

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

**TYPES OF APPLICATION:** Those listed in Section 10.0

**10.4 Non-Food Tree Crops**



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LABELED CROPS: Pine, Poplar, Eucalyptus, Christmas trees, All other non-food tree crops

TYPES OF APPLICATION: Those listed in Section 10.0

**NOTE:** Unless otherwise directed, do not apply this product as an over-the-top broadcast spray in plantations or tree crops.

**Site Preparation**

USE INSTRUCTIONS: This product may be used for weed control prior to planting non-food tree crops.

PRECAUTIONS, RESTRICTIONS: Protect non-target plants during site preparation application.

**Directed Spray, Spot Treatment, Wiper Applicator**

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

PRECAUTIONS, RESTRICTIONS: Avoid contact of spray, drift or mist of this product with foliage or green bark of established Christmas trees and other pine trees. Desirable plants can be protected from the spray solution by using shields or coverings of impermeable materials.

**10.5 Pome Fruit**

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

TYPES OF APPLICATION: Those listed in Section 10.0

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

**10.6 Stone Fruit**

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

TYPES OF APPLICATIONS: Those listed in Section 10.0; in olive groves, apply only as a directed spray.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 17 days between last application and harvest in stone fruit crops.

Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid application 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. USE EXTREME CARE TO ENSURE THAT NO PART OF THE PEACH TREE IS CONTACTED WITH OVERSPRAY OR DRIFT OF THIS PRODUCT.

**10.7 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 APPLICATION: Those listed in Section 10.0

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 of coconut.

**10.8 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, Ilama, 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,

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mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambu.

**TYPES OF APPLICATION:** Those listed in Section 10.0, and as described below as a Bananacide (Banana Only).

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 1 day between application and harvest in banana, coffee, guava, papaya, and plantain crops. Allow a minimum of 14 days between application and harvest for any other tropical or subtropical tree fruit listed. In coffee and banana, delay application 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 in order to establish a disease-free buffer around a plantation. Remove all fruit from the plants within the treatment area prior to treatment. Inject 0.04 fluid ounce (1 milliliter) of this concentrated product (undiluted) for every 2 to 3 inches of pseudostem diameter of the banana plant. Make the injection at least one foot above the ground, except for very small plants, which can be injected vertically into the top. Any subsequent re-growth must also be destroyed. Mechanically destroy all plants and mats (or units) within a 4-foot radius around a treated mat.

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 might 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 milliliters) of this product 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 weed control.

### **10.9 Vine Crops**

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

**TYPES OF APPLICATION:** Those listed in Section 10.0

**USE INSTRUCTIONS:** Apply this product for weed control only when green shoots, canes or foliage are not in the spray zone.

In the northeast and Great Lakes regions, apply this product in grape vineyards prior to the end of the bloom stage in order to avoid crop injury, or apply using a shielded sprayer or wiper applicator.

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

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

**USE INSTRUCTIONS:** Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates of this product for specific weeds. When applied as directed, this product will control those annual and perennial grasses and broadleaf weeds. Application rates specified on this label for the control of tough weeds, or those specified on separate supplemental labeling for this product, supersede rates listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH AND TREES RATE SECTION" of this label. Additional information on the control of tough weeds can be found in Fact Sheets published for this product.

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**11.1 Alfalfa, Clover, and Other Forage Legumes**

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

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Spot Treatment, Wiper Applicator, Preharvest (except Kenaf and Leucaena), Stand Removal

For use directions with Roundup Ready alfalfa, see the "ROUNDUP READY CROPS" section of this label.

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied before, during or after planting crops listed in this section, but prior to crop emergence.

PRECAUTIONS, RESTRICTIONS: Remove domestic livestock before application.

**Spot Treatment, Wiper Applicator**

USE INSTRUCTIONS: This product may be applied as a spot treatment or over the top of crops listed in this section with a wiper applicator. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. Application may be repeated in the same area at 30-day intervals.

PRECAUTIONS, RESTRICTIONS: For spot treatment and use with a wiper applicator, apply in areas where the movement of domestic livestock can be controlled. Remove domestic livestock before application and wait 3 days after application before grazing livestock or harvesting. Do not treat more than 10 percent of the total field area at any one time.

**Preharvest (except Kenaf and Leucaena), Stand Removal**

USE INSTRUCTIONS: This product may be applied as a broadcast application prior to harvest (except in kenaf and leucaena) in declining stands or in any stand where severe crop injury or destruction is acceptable, or to remove established stands of any forage legumes listed in this section. Application may be made at any time of the year to control annual and perennial weeds, including quackgrass. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing. Treatment for quackgrass must be followed by deep tillage for complete control. If the crop is to be harvested or grazed by livestock, use up to a maximum of 44 fluid ounces per acre in alfalfa and up to 32 fluid ounces per acre in all other legumes listed on this label. For complete removal of established stands of clover, it might be necessary to use a higher application rate, as listed in the "PERENNIAL WEEDS RATE SECTION" of this label.

PRECAUTIONS, RESTRICTIONS: This application can destroy an alfalfa stand and severely injure or destroy other legume crops listed, such as clover. Remove domestic livestock before application. 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 application rates and intervals defined below. For application rates higher than those listed here, do not harvest for livestock feed or allow livestock to graze on treated foliage.

Crop	Maximum Single Preharvest Application Rate (per acre)	Minimum Interval Between Application and Harvest or Livestock Grazing
Alfalfa	44 fluid ounces	36 hours
All other legumes listed	32 fluid ounces	3 days

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Crops listed on this label may be planted into the treated area at any time; all other crops may be planted 30 days after application. Preharvest application on alfalfa grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on alfalfa grown for seed.

### 11.2 Conservation Reserve Program (CRP)

TYPES OF APPLICATION: Renovation (Rotating out of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Wiper Applicator

#### 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 information.

PRECAUTIONS, RESTRICTIONS: Crops listed on this label may be planted into the treated area at any time; all other crops may be planted 30 days after application.

#### Postemergence Weed Control in Dormant CRP Grasses, Wiper Applicator

USE INSTRUCTIONS: Apply this product to suppress competitive growth and seed production of undesirable vegetation on CRP land. Application may be made using a wiper applicator to control tall weeds, or as a broadcast or spot treatment to dormant CRP grasses. For selective weed control using broadcast spray equipment, apply 5 to 8 fluid ounces of this product per acre in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall application may be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS, RESTRICTIONS: Some stunting of CRP perennial grasses will occur if broadcast application is made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2 quarts of this product per acre per year onto CRP land.

### 11.3 Grass Seed and Sod Production

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

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Renovation, Removal of Established Stands, Site Preparation, Shielded Sprayer, Wiper Applicator, Spot Treatment, Creating Rows in Annual Ryegrass

#### Preplant, At-Planting, Preemergence, Renovation, Removal of Established Stand, Site Preparation

USE INSTRUCTIONS: This product controls most existing vegetation for purposes of renovating turf or forage grass seed production areas, or for establishing turfgrass grown for sod. It may be used to destroy undesirable grass vegetation when production fields are converted to alternate species or crops. Apply before, during, or after planting, or for renovation purposes. For maximum control of existing vegetation, delay planting to determine if any re-growth of 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 herbicide spray. Where repeat treatments are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall application provides best control. Broadcast application equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates of up to 3.3 quarts per acre may be used to totally remove an established stand of tough to kill grass species.

PRECAUTIONS, RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques, including vertical mowing, coring and slicing, for 7 days after application

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to allow for herbicide translocation into underground plant parts. If application rate is 2 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed on this label may be planted into the treated area at any time; all other crops may be planted 30 days after application. Application must be made prior to crop emergence in order to avoid crop injury.

### **Shielded Sprayer**

**USE INSTRUCTIONS:** Apply 22 to 64 fluid ounces of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows will aid shielded sprayer application. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields. See additional instructions on the use of shielded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

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

### **Wiper Applicator**

**USE INSTRUCTIONS:** This product may be applied over the top of desirable grasses using a wiper applicator for the control of tall weeds. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS, RESTRICTIONS:** Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation could result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

### **Spot Treatment**

**USE INSTRUCTIONS:** Apply a 1-percent solution of this product using a hand-held sprayer to control weeds within established vegetation prior to heading of grasses grown for seed or to control sod remnants or other unwanted vegetation after sod is harvested.

**PRECAUTIONS, RESTRICTIONS:** Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

### **Creating Rows in Annual Ryegrass**

**USE INSTRUCTIONS:** Apply 11 to 22 fluid ounces of this product per acre. Best results are obtained when application is made before ryegrass reaches 6 inches in height. Use the higher rate within this range when ryegrass is greater than 6 inches in height. Set nozzle heights to allow the establishment of the desired row spacing. Use low-pressure nozzles or drop nozzles designed to target the application over a narrow band.

**PRECAUTIONS, RESTRICTIONS:** Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

Grower assumes all responsibility for crop losses resulting from misapplication of this product.

### **11.4 Pastures**

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

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TYPES OF APPLICATION: Preplant, Preemergence, Pasture Renovation, Spot Treatment, Wiper Applicator, Postemergence Weed Control (Broadcast Application)

**Preplant, Preemergence, Pasture Renovation**

USE INSTRUCTIONS: This product may be applied for weed control prior to planting or emergence of forage grasses. This product may also be applied to control perennial pasture species listed on this label prior to re-planting.

PRECAUTIONS, RESTRICTIONS: If application rates total 2 quarts of this product per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed on this label may be planted into the treated area at any time; all other crops may be planted 30 days after application.

**Spot Treatment, Wiper Applicator**

USE INSTRUCTIONS: This product may be applied in pastures as a spot treatment, or over the top of desirable grasses using a wiper applicator to control tall weeds. Application may be repeated in the same area at 30-day intervals. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS, RESTRICTIONS: For spot treatment or use with a wiper applicator at rates of 2 quarts of this product per acre or less, the entire field or any portion of it may be treated. For spot treatment or wiper applicator use at rates above 2 quarts of this product 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 for feed.

**Postemergence Weed Control (Broadcast Application)**

USE INSTRUCTIONS: This product may be applied to pastures to suppress competitive growth and seed production of annual weeds and undesirable vegetation. For selective weed control using broadcast application equipment, apply 8 to 11 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Higher application rates to control tough-to-control weeds may be used, however, injury will occur if perennial grasses are no longer dormant. Late fall application may be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS, RESTRICTIONS: Some stunting of perennial grasses will occur if broadcast application is made when plants are not dormant. Higher application rates will cause stand reductions. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2 quarts per acre per year onto pasture grasses except for renovation uses as described on this label. If replanting is needed due to severe stand reduction, wait 30 days after application before planting any crop not listed on this label.

**11.5 Rangeland**

TYPES OF APPLICATION: Postemergence

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

Preventing viable seed production is critical to the successful control of invasive annual grassy weeds in rangelands. Follow-up applications in sequential years can be used to eliminate most of the viable seeds. Delay grazing of treated areas to allow desirable perennials to grow, flower and re-seed the treated area.

Apply 8 to 11 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 mature brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary

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weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Apply in the fall to areas where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 11 fluid ounces of this product per acre at the 3-leaf stage. Delaying application beyond this stage will result in reduced or unacceptable control. Controlled burning prior to application can be useful in eliminating the thatch layer produced by slow decaying culms. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years are necessary to eliminate the seed bank before re-establishing desirable perennial grasses in medusahead-dominated rangelands.

**PRECAUTIONS, RESTRICTIONS:** Slight discoloration of the desirable grasses could occur, but they will re-green and resume growth 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 or livestock grazing is required. Do not apply more than 2 quarts of this product per acre per year.

### 12.0 ROUNDUP READY CROPS

ROUNDUP READY CROPS CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO GLYPHOSATE, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO CROPS THAT ARE NOT GLYPHOSATE TOLERANT. AVOID CONTACT OF THIS PRODUCT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE, AS SEVERE PLANT INJURY OR DESTRUCTION WILL RESULT. Information on Roundup Ready crops can be obtained from your seed supplier or Monsanto representative. Roundup Ready crops must be purchased from an authorized licensed seed supplier.

The instructions in the sections that follow, or those published separately on supplemental labeling for this product, include all applications of this product that may be made onto the specified Roundup Ready crops during the complete cropping season. DO NOT combine these directions for use with other instructions for crops in the "ANNUAL AND PERENNIAL CROPS" and "PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS" sections of this label, which do not contain a glyphosate-tolerance gene.

**NOTE:** Roundup Ready seed, and the method of selectively controlling weeds in a 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 a Roundup Ready trait cannot be used for research and demonstration, reverse engineering or in connection with herbicide registration. Progeny seed containing a Roundup Ready trait may not be saved for replanting or transferred to others for replanting. Contact your Authorized Monsanto Retailer for information on obtaining a limited use license.

**USE INSTRUCTIONS:** Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds. When applied as directed, this product will control the annual and perennial grasses and broadleaf weeds listed. Observe the maximum application rates and crop stage timings specified for individual Roundup Ready crops in the sections that follow.

**Sprayer Preparation:** It is important that sprayer and mixing equipment be clean and free of pesticide residue before being used to apply 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.

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**ATTENTION: AVOID DRIFT. USE EXTREME CARE WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE.**

**Ground broadcast application**—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.

**Aerial application**—All treatments described in this section may be made by aerial application equipment, where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label and on all supplemental labeling published separately for this product. Apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for important information on aerial application and procedures for avoiding spray drift that could cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

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:** Tank mixtures of this product with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers could result in reduced weed control or crop injury when applied over the top of Roundup Ready crops. Read the label of all products used in the tank mixture prior to use to determine the potential for crop injury. Always read and follow label directions for all products in the tank mixture. Use all products according to rates and timing specified on the product label. Always predetermine the compatibility of tank-mix products together in the carrier by mixing small proportional quantities in advance. Monsanto has not tested all tank-mix product formulations for compatibility, antagonism or product performance. Buyer and all users are responsible for any and all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not specifically listed on this label or in separate supplemental labeling or Fact Sheets for this product. See the "MIXING" section of this label for more information on tank mixtures.

Unless otherwise directed, nonionic surfactant may be added to the spray solution for application to Roundup Ready crops. The addition of certain surfactants to a spray solution of this product could result in some crop response including leaf speckling or leaf necrosis due to the surfactant. Refer to the individual Roundup Ready crop sections that follow, or to separate supplemental labeling, for additional precautions or restrictions on the use of surfactants. Refer to the "MIXING" section of this label for additional information on the use of surfactants.

Ammonium sulfate may be added to spray solutions of this product for application to Roundup Ready crops. Refer to the "MIXING" section of this label for instructions on the use of ammonium sulfate.

**NOTE:** The following use directions 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, apply this product as a preplant burndown treatment 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, burcucumber, and giant ragweed with multiple germination times, or suppressed (stunted) weeds, might require a second application of this product for complete control. Make second application after some re-growth has occurred and at least 10 days after a previous application of this product.

Application rates of this product specified on this label for the control of tough weeds, or those specified on separate supplemental labeling for this product, supersede rates in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. Additional information on the control of tough weeds can be found in Fact Sheets published for this product.



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PRECAUTIONS, RESTRICTIONS: Observe the maximum application rates stated throughout this label. Maximum application rates apply to the use of this product combined with the use of any and all other herbicides containing glyphosate, whether applied separately or as mixtures. Calculate the application rates (glyphosate acid equivalents) and ensure that the total use of this and other glyphosate-containing products does not exceed the stated maximum rate. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**12.1 Roundup Ready Alfalfa**

TYPES OF APPLICATION: Preplant, At-planting, Preemergence, Postemergence (In-crop)

USE INTRUCTIONS: Refer to the following table for the maximum application rates of this product.

Maximum Application Rates	
Combined total per year for all applications, including preplant during year of establishment	5.3 quarts per acre
Combined total per year for In-crop application on newly established and established stands	4.1 quarts per acre (132 fluid ounces per acre)
Preplant, At-planting and Preemergence single application	44 fluid ounces per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

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

**Postemergence (In-crop)**

USE INSTRUCTIONS: This product may be applied over the top of Roundup Ready alfalfa (in-crop) from emergence until 5 days prior to cutting. To maximize crop yield and quality potential of forage and hay, apply this product after weeds have emerged but before alfalfa growth or re-growth interferes with spray coverage of the target weeds.

Refer to the "ANNUAL WEEDS RATE SECTION" and "PERRENIAL WEEDS RATE SECTION" of this label for application rate for specific weeds. When applied as directed, this product will control the annual and perennial grasses and broadleaf weeds listed in those sections. This product will also suppress or control the parasitic weed Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa. Repeat applications might be necessary for complete control.

**New Stand Establishment (Seeding Year)**—Due to the biology and breeding constraints of alfalfa, up to 10 percent of the seedlings might not contain a Roundup Ready gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by this loss of plants, make a single application of at least 22 fluid ounces of this product per acre at or before the 4-trifoliolate growth stage. Refer to the following table for application rates during stand establishment (seeding year).

NEW STAND ESTABLISHMENT (Seeding Year) Application Rates
Prior to First Cutting

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From emergence up to 4 trifoliolate leaves	22 to 44 fluid ounces per acre
From 5 trifoliolate leaves up to 5 days before <i>first</i> cutting	Up to 44 fluid ounces per acre
<b>After First Cutting</b>	
In-crop application, per cutting, up to 5 days before cutting	Up to 44 fluid ounces per acre

**TANK MIXTURES:** This product may be applied postemergence (in-crop) over the top of Roundup Ready alfalfa in the seeding year at up to 44 fluid ounces per acre in a tank-mix with the following products. Apply after weeds have emerged, but before alfalfa growth or re-growth interferes with spray coverage of the target weeds. Ensure that the specific product being used in the tank-mix is labeled for application postemergence (in-crop) to alfalfa. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use on alfalfa:*

clethodim, imazamox, imazethapyr, sethoxydim, quizalofop p-ethyl

Assure II, Poast, Prism, Pursuit, Raptor, SelectMAX]

*[Optional statement: Pursuit or Raptor applied to seedling alfalfa could result in a temporary reduction in growth. Do not include crop oil concentrate or methylated seed oil in tank mixtures of this product with Pursuit or Raptor as unsatisfactory crop injury could result.]*

**Established Stands (Non-seeding Year)**—Refer to the following table for directions and application rates for in-crop application to established stands of alfalfa (non-seeding year).

<b>ESTABLISHED STANDS (Non-seeding Year)</b> Application Rates	
In-crop applications, per cutting, up to 5 days before cutting	Up to 44 fluid ounces per acre

**TANK MIXTURES:** This product may be applied postemergence (in-crop) over the top of established stands of Roundup Ready alfalfa in tank mixtures described below according to the growing condition of the crop. Ensure that the specific product being used is labeled for application postemergence (in-crop) to alfalfa. Read and follow label directions for all products in the tank mixture.

**Actively growing alfalfa:** For control of emerged annual grasses and broadleaf weeds when alfalfa is actively growing, this product may be applied at up to 44 fluid ounces per acre in a tank mixture with the following herbicides.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use on alfalfa:*

clethodim, imazamox, imazethapyr, sethoxydim, quizalofop p-ethyl

Assure II, Poast, Prism, Pursuit, Raptor, SelectMAX]

*[Optional statement: Do not include crop oil concentrate or methylated seed oil in tank mixtures of this product with Pursuit or Raptor as unsatisfactory crop injury could result.]*

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**Dormant Alfalfa:** For control of emerged annual grasses and broadleaf weeds when alfalfa is dormant, this product may be applied at up to 44 fluid ounces per acre in a tank mixture with the following herbicides. Apply when the daily temperature remains above freezing.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use on alfalfa:*

imazamox, imazethapyr, metribuzin, pronamide; propyzamide

*Kerb 50-W, Lexone, Pusuit, Raptor, Sencor]*

*[Optional statement: Do not include crop oil concentrate or methylated seed oil in tank mixtures of this product with Pusuit or Raptor as unsatisfactory crop injury could result.]*

**PRECAUTIONS, RESTRICTIONS:** Where Roundup Ready alfalfa is grown with a companion or cover crop, or is over-seeded with a second species, in-crop (over-the-top) application of this product will eliminate the non-Roundup Ready (non-glyphosate-tolerant) species. Do not exceed 44 fluid ounces per acre for any single in-crop application of this product. Sequential applications of this product must be at least 7 days apart. The combined total per year for all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) must not exceed 4.1 quarts (132 fluid ounces) per acre. Do not apply to frozen or snow covered ground. Remove domestic livestock before application. Wait a minimum of 5 days after application before grazing, or cutting or feeding of forage and hay.

Tank mixtures of this product with herbicides, insecticides, or fungicides could result in crop injury or reduced weed control. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**12.2 Roundup Ready Canola (Spring Varieties)**

Roundup Ready spring canola is defined as those Roundup Ready canola varieties that are seeded in the spring and harvested in the fall and do not enter a winter dormancy period.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop)

**USE INSTRUCTIONS:** Refer to the following table for the maximum application rates for this product with spring varieties of Roundup Ready canola.

<b>Maximum Application Rates</b>	
Total of all Preplant, At-Planting, Preemergence applications	44 fluid ounces per acre
Total of all In-crop Applications from emergence to 6-Leaf Stage	22 fluid ounces per acre

**PRECAUTIONS, RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

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

**PRECAUTIONS, RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 44 fluid ounces per acre per season.

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** This product may be applied postemergence (in-crop) to spring varieties of Roundup Ready canola from emergence through the 6-leaf stage of development. Application made

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during bolting or flowering could result in crop injury and yield loss. To maximize yield potential, eliminate competing weeds early.

**Single Application**—Apply 11 to 16 fluid ounces of this product per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications as this could result in temporary yellowing, delayed flowering, and/or growth reduction. Similar crop injury could result when more than 11 fluid ounces per acre are applied after the 4-leaf stage.

**Sequential Application**—Apply 11 fluid ounces of this product 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 application works best for control of early emerging annual and perennial weeds, such as Canada thistle and quackgrass, or whenever more than one application is needed for adequate weed control.

**PRECAUTIONS, RESTRICTIONS:** No more than two in-crop (over-the-top) broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application must not exceed 22 fluid ounces of this product per acre. Allow a minimum of 60 days between last application and canola harvest.

### 12.3 Roundup Ready Canola (Winter Varieties)

Roundup Ready Winter Canola is defined as those Roundup Ready canola varieties that are seeded in early fall and harvested the following spring or summer. Winter canola varieties are intended to enter a cold period dormancy in the winter.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop)

**USE INSTRUCTIONS:** Refer to the following table for the maximum application rates of this product with winter varieties of Roundup Ready canola.

Maximum Application Rates	
Total of all Preplant, At-Planting, Preemergence applications	44 fluid ounces per acre
Total of all In-crop applications from emergence to canopy closure or prior to bolting in the spring	44 fluid ounces per acre

**PRECAUTIONS, RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for information on Maximum Application Rates.

#### Preplant, At-Planting, Preemergence

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

#### Postemergence (In-crop)

**USE INSTRUCTIONS:** This product may be applied to winter varieties of Roundup Ready canola from emergence to canopy closure in the fall and prior to bolting in the spring. Application made during or after bolting could result in crop injury and yield loss. To maximize yield potential, eliminate competing weeds early.

Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered, might require a sequential application of this product for control. Make the second application after some re-growth has occurred and at least 60 days after the initial application of this product.

**Single Application**—Apply 16 to 22 fluid ounces of this product per acre in the fall when weeds are small and actively growing. Use the higher rate within this range when weed densities are high, when weeds

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have overwintered or when weeds become large and well established. Application of greater than 16 fluid ounces per acre prior to the 6-leaf stage could result in reduced crop growth in the fall. Avoid spray overlaps as this could result in temporary yellowing and/or growth reduction.

**Sequential Application**—Apply 11 to 22 fluid ounces of this product per acre to 2-leaf or larger canola in the fall, followed by a sequential application at the same rate and at a minimum interval of 60 days, but before bolting in the spring. Sequential application works best for control of early emerging annual weeds and winter emerging weeds, such as downy brome, jointed goatgrass and ryegrass, and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds, sequential application might be required to reduce competition with the crop.

**PRECAUTIONS, RESTRICTIONS:** No more than two over-the-top broadcast applications may be made from crop emergence up to the onset of bolting, and the total in-crop application must not exceed 44 fluid ounces of this product per acre. Applications of greater than 16 fluid ounces per acre prior to the 6-leaf stage could result in reduced crop growth in the fall. Allow a minimum of 60 days between last application and harvest of canola grain. No waiting period is required between application and open grazing of livestock.

**12.4 Corn Hybrids with Roundup Ready 2 Technology**

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop), Spot Treatment, Preharvest, Post-Harvest

**USE INSTRUCTIONS:** Refer to the following table for maximum application rates of this product with corn hybrids with Roundup Ready 2 Technology

<b>Maximum Application Rates</b>	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre
Total of all In-crop applications from emergence through 48-inch corn	64 fluid ounces per acre (32 fluid ounces per acre per application)
Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest*	22 fluid ounces per acre

\*See PRECAUTIONS, RESTRICTIONS section for Preharvest application

**PRECAUTIONS, RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for information on Maximum Application Rates. The use of the in-crop (over-the-top) rates described in these instructions on other than corn hybrids with Roundup Ready 2 Technology could cause crop injury and reduced yields.

**Preplant, At-Planting, Preemergence**

**USE INSTRUCTIONS:** This product may be applied alone or in a tank mixture before, during or after planting corn hybrids with Roundup Ready 2 Technology.

**TANK MIXTURES:** This product may be tank-mixed with the following products. Ensure that the specific product being used is labeled for application prior to emergence of corn. Read and follow label directions

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for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water, or 10 to 60 gallons of nitrogen solution, per acre.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to corn:*

2,4-D, acetochlor, alachlor, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, dimethenamid, dimethenamid-p, flufenacet, flumetsulam, flumiclorac pentyl ester, isoxaflutole, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, rimsulfuron, saflufenacil, simazine

Aim, Aim EC, Axiom, Balance, Balance PRO, Banvel, Bicep MAGNUM, Bicep II MAGNUM, Bicep Lite II MAGNUM, Bullet, Cinch, Cinch ATZ, Clarity, Define, Degree, Degree Xtra, Distinct, Dual MAGNUM, Dual II MAGNUM, Epic, Frontier, FullTime, Guardsman, Guardsman MAX, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Keystone, Keystone LA, Lariat, Leadoff, Linex, Lorox, Marksman, Me-Too-Lachlor II, Micro-Tech, Outlook, Prowl, Python, Python II, Radius, Resolve, Resource, Shark, Sharpen, Simazine, Stalwart, Stalwart C, Stalwart Xtra, Surpass, TopNotch]

**PRECAUTIONS, RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre per season. Application of 2,4-D or dicamba must be made at least 7 days prior to planting corn. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**NOTE:** For maximum weed control, make a postemergence (in-crop) application of this product following the use of the preemergence residual products listed above.

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** This product may be applied alone or in a tank-mix over the top of corn hybrids with Roundup Ready 2 Technology from emergence through the V8 stage (8 leaves with collars), or until corn height reaches 30 inches (free standing), whichever comes first. Use drop nozzles for optimum spray coverage and weed control when corn height is 24 to 30 inches. For corn heights 30 to 48 inches (free standing), apply this product using **only** ground application equipped with drop nozzles aligned to avoid spraying into the whorls of the corn plants. Single in-crop application of this product up to 48-inch corn must not exceed 32 fluid ounces per acre. Sequential in-crop applications of this product from emergence through 48 inches in height must not exceed 64 fluid ounces per acre per growing season.

When applied as directed, this product will control annual grasses and broadleaf weeds listed on this label. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product. Make a postemergence application of 16 to 22 fluid ounces of this product per acre before weeds exceed 4 inches in height (before they become competitive with the crop). Repeat this application before new flushes of weeds exceed 4 inches in height.

**TANK MIXTURES:** This product may be tank-mixed with the following products. Ensure that the specific product being used is labeled for application postemergence (in-crop) to corn. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to corn:*

2,4-D, acetochlor, alachlor, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, foramsulfuron, halosulfuron-methyl, iodosulfuron-methyl-sodium, mesotrione, nicosulfuron, rimsulfuron, thifensulfuron methyl, topramezone

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Aim EC, Banvel, Basis, Basis Gold, Bullet, Callisto, Clarity, Degree, Degree Xtra, Distinct, Equip, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Impact, Marksman, Micro-Tech, Option, Resolve, Resource, Shark, Status]

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

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

PRECAUTIONS, RESTRICTIONS: 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 or grain. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**Preharvest**

USE INSTRUCTIONS: This product may be applied at up to 22 fluid ounces per acre for annual and perennial weed control prior to harvest. Make application 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: A preharvest application may be made only if the combined total of previously applied over-the-top or drop nozzle applications does not exceed 44 fluid ounces of this product per acre. Allow a minimum of 7 days between application and harvest or feeding of corn stover or grain.

**Post-Harvest**

USE INSTRUCTIONS: This product may be applied for weed control after crop harvest. Higher rates might 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. Ensure that the specific product being used is labeled for post-harvest application in corn. Read and follow label directions of all products in the tank mixture.

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

**12.5 Roundup Ready Cotton**

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Postemergence (In-crop), Selective Equipment (In-crop), Preharvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready cotton.

Maximum Application Rates	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre

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Total of all In-crop applications from ground cracking to layby	2.5 quarts per acre
Maximum Preharvest application rate	44 fluid ounces per acre
Combined total of all In-crop applications from emergence through harvest	4 quarts per acre

**PRECAUTIONS, RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. The combined total application of this product from cotton emergence through harvest must not exceed 4 quarts per acre. Allow a minimum of 7 days between application and harvest. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

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

**TANK MIXTURES:** This product may be tank-mixed with 2,4-D and Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to the emergence of cotton. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use prior to the emergence of cotton:*

clomazone, diuron, flumioxazin, fluometuron, fomesafen, metolachlor, s-metolachlor, norflurazon, pendimethalin, prometryn, pyriithiobac-sodium, saflufenacil

Caparol, Command, Cotoran, Cotton Pro, Direx, Dual MAGNUM, Dual II MAGNUM, Karmex, Meturon, PARRLAY, Prowl, Prowl H2O, Reflex, Sharpen, Stalwart, Staple, Valor, Zorial]

**PRECAUTIONS, RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre per season. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** This product may be applied over the top of Roundup Ready cotton (in-crop) at rates up to 22 fluid ounces per acre per application from ground cracking until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). **NO MORE THAN TWO OVER-THE-TOP BROADCAST APPLICATIONS MAY BE MADE FROM CROP EMERGENCE THROUGH THE 4-LEAF (NODE) STAGE OF DEVELOPMENT. SEQUENTIAL OVER-THE-TOP OR POST-DIRECTED APPLICATIONS OF THIS PRODUCT IN-CROP MUST BE AT LEAST 10 DAYS APART AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS.** Over-the-top applications made after the 4-leaf (node) stage of development could result in boll loss, delayed maturity and/or yield loss.

**TANK MIXTURES:** This product may be tank-mixed with the following products and applied over the top of Roundup Ready cotton up to the 4-leaf stage. Ensure that the specific product being used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to cotton:*



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acetochlor, clethodim, fluazifop-P-butyl, fomesafen, metolachlor, s-metolachlor, pyriithiobac-sodium, quizalofop-P-ethyl, sethoxydim, trifloxysulfuron-sodium

Assure II, Dual MAGNUM, Envoke, Fusilade, PARRLAY, Poast Plus, Reflex, Select, Select MAX, Stalwart, Staple, Warrant]

[Optional text: Staple could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) to Roundup Ready cotton. Dual MAGNUM and Stalwart applied over the top of Roundup Ready cotton could cause leaf injury in the form of necrotic spotting.]

**Salvage Treatment**—This treatment may be used after the 4-leaf stage of development and only where weeds threaten to cause the loss of the crop. Apply 22 fluid ounces per acre either as an over-the-top application or as a post-directed treatment sprayed higher on the cotton plants and over the weeds. **NOTE: SALVAGE TREATMENT WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT MAY BE USED PER GROWING SEASON.**

**PRECAUTIONS, RESTRICTIONS:** Maximum quantity of this product that may be applied for all in-crop applications from ground cracking to layby combined is 2.5 quarts per acre per season. DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT (OTHER THAN THOSE CONTAINED IN ANY TANK-MIX PRODUCT) FOR OVER-THE-TOP APPLICATION TO ROUNDUP READY COTTON.

Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

### Selective Equipment (In-crop)

**USE INSTRUCTIONS:** This product may be applied using precision post-directed or hooded sprayers at rates up to 22 fluid ounces per acre per application to Roundup Ready cotton through layby. At this stage, use post-directed equipment to direct the spray to the base of the cotton plants, avoiding contact of the herbicide spray with the leaves of the plant. To minimize spray contact, maintain a low spray pressure (less than 30 pounds per square inch) and place nozzles in a low position directing a horizontal spray pattern under the leaves of the cotton plant and onto the weeds in the row. For best results, apply this product while weeds are small (less than 3 inches in height). See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**TANK MIXTURES:** This product can be tank-mixed with the following products for in-crop application using precision post-directed or hooded sprayers. Ensure that the specific product being used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions of all products in the tank mixture.

[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to cotton:

acetochlor, carfentrazone-ethyl, diuron, flumioxazin, fluometuron, linuron, metolachlor, pendimethalin, prometryn, pyriithiobac-sodium, trifloxysulfuron-sodium

Aim, Caparol, Cotoran, Direx, Envoke, Layby-Pro, PARRLAY, Prowl, Prowl H2O, Staple, Valor]

[Optional text: Staple could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) to Roundup Ready cotton.]

**PRECAUTIONS, RESTRICTIONS:** Maximum quantity of this product that may be applied for all in-crop applications from ground cracking to layby combined is 2.5 quarts per acre per season. NO MORE THAN TWO APPLICATIONS OF THIS PRODUCT MAY BE MADE FROM THE 5-LEAF STAGE THROUGH LAYBY. SEQUENTIAL OVER-THE-TOP OR POST-DIRECTED APPLICATIONS OF THIS PRODUCT IN-

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CROP MUST BE AT LEAST 10 DAYS APART AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

### Preharvest

**USE INSTRUCTIONS:** This product may be applied for annual and perennial weed control prior to crop harvest after 20 percent boll crack. Apply up to 44 fluid ounces of this product per acre.

**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 for preharvest weed control to cotton grown for seed, as a reduction in germination or vigor could occur. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on Roundup Ready cotton grown for seed. **DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PREHARVEST APPLICATIONS TO ROUNDUP READY COTTON.**

**ATTENTION:** USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON. HOWEVER, DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH LABEL DIRECTIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

### 12.6 Roundup Ready Flex Cotton

The instructions provided in this section are specific to, and should only be used with, varieties designated as Roundup Ready Flex cotton. Applications described in this section made over the top of cotton other than Roundup Ready Flex cotton will cause crop injury and reduced yields. DO NOT combine the instructions in this section with those in the "Roundup Ready Cotton" section of this label, or with any other Roundup Ready cotton or Roundup Ready Flex cotton instructions on labeling for this or any other glyphosate-containing products. Drift of this product from an application made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton could cause extensive crop injury, including boll loss, delayed maturity and/or yield loss.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop), Preharvest

**USE INSTRUCTIONS:** Refer to the following table for maximum application rates of this product with Roundup Ready Flex cotton.

Maximum Application Rates	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre
Total of all In-crop applications from ground cracking to 60 percent open bolls	4.0 quarts per acre
Total of all In-crop applications from layby to 60 percent open bolls	44 fluid ounces per acre
Total of all In-crop applications from 60 percent open bolls to 7 days prior to harvest	44 fluid ounces per acre
Total of all In-crop applications from emergence through harvest	4 quarts per acre

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II. MAIN LABEL FOR FOOD CROP USES

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

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

TANK MIXTURES: This product may be tank-mixed with 2,4-D or Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to emergence of cotton. Read and follow label directions of all products in the tank mixture.

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*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use prior to the emergence of cotton:*

clomazone, diuron, flumioxazin, fluometuron, fomesafen, metolachlor, s-metolachlor, norflurazon, pendimethalin, prometryn, pyriithiobac-sodium, saflufenacil

Caparol, Command, Cotoran, Cotton Pro, Direx, Dual MAGNUM, Dual II MAGNUM, Karmex, Meturon, PARRLAY, Prowl, Prowl H2O, Reflex, Sharpen, Stalwart, Staple, Valor, Zorial]

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PRECAUTIONS, RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre per season. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**Postemergence (In-crop)**

USE INSTRUCTIONS: This product may be applied to control annual grasses and broadleaf weeds listed on this label in Roundup Ready Flex cotton. To maximize yield potential, eliminate competing weeds early. Many perennial weeds will be controlled or suppressed with one or more applications of this product. Use an initial application of 22 fluid ounces per acre to control or suppress 1 to 3 inch tall annual grasses and broadleaf weeds. This product may be applied postemergence to Roundup Ready Flex cotton using ground application equipment at rates up to 32 fluid ounces per acre per application. In addition to broadcast application, post-directed spray equipment may be used to achieve more thorough weed coverage.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready Flex cotton. Ensure that the specific product being used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions of all products in the tank mixture.

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*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to cotton:*

acetochlor, clethodim, fluazifop-P-butyl, fomesafen, metolachlor, s-metolachlor, pyriithiobac-sodium, quizalofop-p-ethyl, sethoxydim, trifloxysulfuron-sodium

Assure II, Dual MAGNUM, Envoke, Fusilade, PARRLAY, Poast Plus, Reflex, Select, Select MAX, Stalwart, Staple, Warrant]

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*[Optional text: Staple could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) in Roundup Ready Flex cotton. Dual MAGNUM and Stalwart applied over the top of Roundup Ready Flex cotton could cause leaf injury in the form of necrotic spotting.]*

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## II. MAIN LABEL FOR FOOD CROP USES

This product may be tank-mixed with the following products for in-crop application using precision post-directed or hooded sprayers. Ensure that the specific product being used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to cotton:*

acetochlor, carfentrazone-ethyl, diuron, flumioxazin, fluometuron, linuron, metolachlor, pendimethalin, prometryn, pyriithiobac-sodium, trifloxysulfuron-sodium

Aim, Caparol, Cotoran, Direx, Envoke, Layby-Pro, PARRLAY, Prowl H2O, Staple, Valor, Warrant]

*[Optional text: Staple could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) in Roundup Ready Flex cotton.]*

**PRECAUTIONS, RESTRICTIONS:** The maximum single, in-crop application rate of this product to Roundup Ready Flex cotton using ground application equipment is 32 fluid ounces per acre. **In-crop application rates above 22 fluid ounces per acre made alone or with the addition of other crop chemical products containing surfactant could cause a crop response including leaf speckling or leaf necrosis.** Do not exceed a maximum rate of 22 fluid ounces of this product per acre when making application by air. Between layby and 60 percent open bolls, the maximum combined total application rate of this product is 44 fluid ounces per acre. The maximum combined total of all applications of this product made from crop emergence to 60 percent open bolls must not exceed 4.0 quarts per acre. **DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR OVER-THE-TOP APPLICATION TO ROUNDUP READY FLEX COTTON.** Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

### **Preharvest**

**USE INSTRUCTIONS:** This product may be applied to Roundup Ready Flex cotton up to 44 fluid ounces per acre for annual and perennial weed control prior to harvest after 60 percent boll crack.

**NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between application and harvest of Roundup Ready Flex cotton. **DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PREHARVEST APPLICATION TO ROUNDUP READY FLEX COTTON.**

**ATTENTION:** USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON. HOWEVER, DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL DIRECTIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

### **12.7 Roundup Ready Soybean**

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop), Preharvest, Post-Harvest

**USE INSTRUCTIONS:** Refer to the following table for maximum application rates of this product with Roundup Ready soybean.

II. MAIN LABEL FOR FOOD CROP USES

Maximum Application Rates	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre
Total of all In-crop applications from ground cracking through flowering (R2 stage soybean)	64 fluid ounces per acre
Maximum preharvest application rate	22 fluid ounces per acre

**PRECAUTIONS, RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. The maximum combined total quantity of this product for all applications in a season is 5.3 quarts per acre. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

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

**TANK MIXTURES:** This product may be tank-mixed with 2,4-D, Banvel or Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to emergence of soybean. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to soybean:*

alachlor, atrazine, carfentrazone-ethyl, chlorimuron ethyl, clethodim, clomazone, cloransulam-methyl, dimethenamid, dimethenamid-p, fenoxypop, fluazifop-p-butyl, flufenacet, flumetsulam, flumiclorac pentyl ester, flumioxazin, fomesafen, imazaquin, imazethapyr, lactofen, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, quizalofop P-ethyl, saflufenacil, sulfentrazone, tribenuron methyl, trifluralin

Aim, Assure II, Authority, Authority Assist, Authority First, Authority MTZ, Axiom, Blanket, Boundary, Canopy, Canopy EX, Classic, Cobra, Command, Command Xtra, Domain, Dual MAGNUM, Dual II MAGNUM, FirstRate, Flexstar, Frontier, Fusion, Gangster, Gauntlet, INTRRO, Lexone, Linex, Linuron, Lorox, Lorox Plus, Me-Too-Lachlor, Micro-Tech, Optill, Outlook, PARRLAY, Pendimax, Prowl, Prowl H2O, Pursuit, Pursuit Plus, Python, Reflex, Resource, Scepter, Select, Select MAX, Sencor, Sharpen, Spartan, Squadron, Steel, Treflan, Valor, Valor XLT]

**PRECAUTIONS, RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre per season. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** This product may be used to control annual grasses and broadleaf weeds in Roundup Ready soybean. This product may be applied from emergence (ground cracking) through flowering (R2 stage soybean). R2 stage soybean ends when a pod 5 millimeters (3/16 inch) long appears at one of the four uppermost nodes on the main stem with a fully developed leaf (R3 stage). Refer to the "ANNUAL WEEDS RATE SECTION" of this label for application rates for specific annual weeds. An initial application of 22 fluid ounces per acre may be used to control or suppress most 2 to 8 inch tall weeds. Weeds will be 2 to 8 inches tall approximately 2 to 5 weeks after planting. If the initial application is

II. MAIN LABEL FOR FOOD CROP USES

delayed and weeds are larger, apply a higher rate of this product. This product may be applied up to 44 fluid ounces per acre as a single, in-crop application for control of annual weeds and where dense weed populations exist.

A 22- to 44-fluid ounce per acre rate (single or multiple applications) of this product will control or suppress perennial weeds, including 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, including drought, hail or wind damage, or a poor soybean stand that slows or delays canopy closure, a sequential application of this product could 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, apply 22 fluid ounces of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready soybean. Ensure that the specific product being used is labeled for application postemergence (in-crop) to soybean. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to soybean:*

acetochlor, acifluorfen, bentazon, chlorimuron-ethyl, clethodim, cloransulam-methyl, fenoxaprop P-ethyl, fluzafop-p-butyl, flumiclorac pentyl ester, fomesafen, imazamox, imazethapyr, lactofen, pendimethalin, quizalofop P-ethyl, sethoxydim, thifensulfuron-methyl

Arrow, Assure II, Basagran, Classic, Cobra, Extreme, FirstRate, Flexstar, Fusilade DX, Fusion, Harmony GT XP, Poast, Poast Plus, Pursuit, Pursuit Plus, Raptor, Reflex, Resource, Select, Select MAX, Synchrony STS, Targa, Ultra Blazer, Warrant]

PRECAUTIONS, RESTRICTIONS: The combined total application of this product from crop emergence through harvest must not exceed 64 fluid ounces per acre. The maximum rate for any single in-crop application is 44 fluid ounces per acre. The maximum combined total amount of this product that may be applied during flowering (R2 stage soybeans) is 44 fluid ounces per acre. Refer to individual tank-mix product labels for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. In some cases, these tank-mix products will cause visual soybean injury.

**Preharvest**

USE INSTRUCTIONS: This product may be applied to Roundup Ready soybean for weed control prior to harvest. Apply up to 22 fluid ounces of this product per acre after pods have set and lost all green color.

PRECAUTIONS, RESTRICTIONS: Take care 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 for weed control after harvest of Roundup Ready soybean. Higher rates might 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. Ensure that the specific product being used is labeled for weed control application after harvest of soybean. Read and follow label directions of all products in the tank mixture.

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II. MAIN LABEL FOR FOOD CROP USES

**12.8 Roundup Ready 2 Yield Soybean**

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Postemergence (In-crop), Preharvest, Post-Harvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready 2 Yield soybean.

Maximum Application Rates	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre
Total of all in-crop applications from ground cracking through flowering (R2 stage soybean)	64 fluid ounces per acre
Maximum preharvest application rate	22 fluid ounces per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. The maximum combined total quantity of this product for all applications in a season is 5.3 quarts per acre. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied before, during or after planting Roundup Ready 2 Yield soybean.

TANK MIXTURES: This product may be tank-mixed with 2,4-D, Banvel or Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to emergence of soybean. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to soybean:*

alachlor, atrazine, carfentrazone-ethyl, chlorimuron-ethyl, clethodim, clomazone, cloransulam-methyl, dimethenamid, dimethenamid-p, fenoxypop, fluazifop-p-butyl, flufenacet, flumetsulam, flumiclorac pentyl ester, flumioxazin, fomesafen, imazaquin, imazethapyr, lactofen, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, quizalofop-P-ethyl, saflufenacil, sulfentrazone, tribenuron methyl, trifluralin

Aim, Assure II, Authority, Authority Assist, Authority First, Authority MTZ, Axiom, Blanket, Boundary, Canopy, Canopy EX, Classic, Cobra, Command, Command Xtra, Domain, Dual MAGNUM, Dual II MAGNUM, FirstRate, Flexstar, Frontier, Fusion, Gangster, Gauntlet, INTRRO, Lexone, Linex, Linuron, Lorox, Lorox Plus, Me-Too-Lachlor, Micro-Tech, Optill, Outlook, PARRLAY, Pendimax, Prowl, Prowl H2O, Pursuit, Pursuit Plus, Python, Reflex, Resource, Scepter, Select, Select MAX, Sencor, Sharpen, Spartan, Squadron, Steel, Treflan, Valor, Valor XLT]

PRECAUTIONS, RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre per season. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

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**Postemergence (In-crop)**

USE INSTRUCTIONS: This product may be used to control annual grasses and broadleaf weeds in Roundup Ready 2 Yield soybean. This product may be applied from emergence (ground cracking) through flowering (R2 stage soybean). R2 stage soybean ends when a pod 5 millimeters (3/16 inch) long appears at one of the four uppermost nodes on the main stem with a fully developed leaf (R3 stage). Refer to the "ANNUAL WEEDS RATE SECTION" of this label for application rates for specific annual weeds. An initial application of 22 fluid ounces per acre can be used to control or suppress most 2- to 8-inch tall weeds. Weeds will be 2 to 8 inches tall approximately 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 applied up to 44 fluid ounces per acre as a single, in-crop application for control of annual weeds and where dense weed populations exist.

A 22- to 44-fluid ounce per acre rate (single or multiple applications) of this product will control or suppress perennial weeds, including bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestalk (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redbone, trumpetcreeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before applying this product.

Under adverse growing conditions, including drought, hail or wind damage, or a poor soybean stand that slows or delays canopy closure, a sequential application of this product might 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 2 YIELD SOYBEAN CROP. To control giant ragweed, apply 22 fluid ounces of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready 2 Yield soybean. Ensure that the specific product being used is labeled for application postemergence (in-crop) to soybean. Read and follow label directions of all products in the tank mixture.

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*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to soybean:*

acetochlor, acifluorfen, bentazon, chlorimuron-ethyl, clethodim, cloransulam-methyl, fenoxaprop-P-ethyl, fluazifop-p-butyl, flumiclorac pentyl ester, fomesafen, imazamox, imazethapyr, lactofen, pendimethalin, quizalofop-P-ethyl, sethoxydim, thifensulfuron-methyl

Arrow, Assure II, Basagran, Classic, Cobra, Extreme, FirstRate, Flexstar, Fusilade DX, Fusion, Harmony GT XP, Poast, Poast Plus, Pursuit, Pursuit Plus, Raptor, Reflex, Resource, Select, Select MAX, Synchrony STS, Targa, Ultra Blazer, Warrant]

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PRECAUTIONS, RESTRICTIONS: The combined total application of this product from crop emergence through harvest must not exceed 64 fluid ounces per acre. The maximum rate for any single in-crop application is 44 fluid ounces per acre. The maximum combined total of this product that may be applied during flowering (R2 stage soybean) is 44 fluid ounces per acre. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. In some cases, these tank-mix products will cause visual soybean injury.

**Preharvest**

USE INSTRUCTIONS: This product may be applied to Roundup Ready 2 Yield soybean for weed control prior to harvest. Apply up to 22 fluid ounces of this product per acre after pods have set and lost all green color.



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PRECAUTIONS, RESTRICTIONS: Take care 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 for weed control after harvest of Roundup Ready 2 Yield soybean. Higher rates might 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. Ensure that the specific product being used is labeled for weed control application after harvest of soybean. Read and follow label directions of all products in the tank mixture.

**12.9 Roundup Ready Sugarbeet**

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Postemergence (In-crop)

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready sugarbeet.

Maximum Application Rates	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre
Total of all applications made from emergence to 8-leaf stage	56 fluid ounces per acre
Total of all applications made between 8-leaf stage and canopy closure	44 fluid ounces per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. The maximum combined total quantity of this product for all applications in a season is 5.3 quarts per acre. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

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

TANK MIXTURES: This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to emergence of sugarbeet. Read and follow label directions of all products in the tank mixture.

[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to sugarbeet:

ethofumesate

Norton SC]

PRECAUTIONS, RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre per season. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

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## II. MAIN LABEL FOR FOOD CROP USES

### Postemergence (In-crop)

**USE INSTRUCTIONS:** This product may be applied over the top of Roundup Ready sugarbeet for control of annual grasses and broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential, eliminate competing weeds early. Up to 4 sequential applications of this product may be made with at least 10 days between applications. This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications might be required to eliminate crop competition throughout the growing season. Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds.

**TANK MIXTURES:** This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready sugarbeet. Ensure that the specific product being used is labeled for application postemergence (in-crop) to sugarbeet. Read and follow label directions of all products in the tank mixture

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*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to sugarbeet:*

clethodim, clopyralid, desmedipham, dimethenamid, ethofumesate, s-metolachlor, phenmedipham, quizalofop-p-ethyl, trisulfuron-methyl

Assure II, Betamix, Betanex, Dual MAGNUM, Frontier, Norton SC, Outlook, Progress, Select, Stinger, Upbeet]

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*[Optional statement: Betamix, Betanex, Norton SC and Progress can cause significant sugarbeet injury. Refer to these product labels for crop injury precautions.]*

**PRECAUTIONS, RESTRICTIONS:** The combined total application of this product from crop emergence through harvest must not exceed 100 fluid ounces per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 32 fluid ounces per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 22 fluid ounces per acre. Allow a minimum of 30 days between last application and sugarbeet harvest. Tank mixtures of this product with herbicides, insecticides or fungicides could result in crop injury or reduced weed control. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

### 13.0 NON-CROP USES AROUND THE FARMSTEAD

**TYPES OF USES:** Farmstead Weed Control, Trim-and-Edge, Greenhouse/Shadehouse, Chemical Mowing, Cut Stump Application, Habitat Management

**USE INSTRUCTIONS:** Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds. When applied as directed, this product will control those annual and perennial grasses and broadleaf weeds. Application rates of this product specified in the following sections, or on separate supplemental labeling or Fact Sheets published for this product, on how to control tough weeds supersede rates in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

#### 13.1 Farmstead Weed Control, Trim-and-Edge

**USE INSTRUCTIONS:** This product may be used to control annual weeds, perennial weeds and woody brush found in any part of the farmstead, including around building foundations and equipment storage areas, along and in fences, in dry ditches and canals, along ditch banks, driveways, farm roads, farmyards, fencerows, parking areas, rangeland, rights-of-way, shelterbelts, storage areas and prior to planting landscape ornamentals.

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TANK MIXTURES: This product may be tank-mixed with the following products, provided that the specific product used is labeled for use on these non-crop sites. Refer to the individual product labels for approved farmstead sites and application rates. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use on these non-crop sites:*

2,4-D, bromacil, chlorosulfuron, dicamba, diuron, imazapic, imazapyr, metsulfuron-methyl, oryzalin, oxadiazon, pendimethalin, prodiamine, simazine, sulfometuron-methyl

Aresnal, Banvel, Barricade 65WG, Clarity, Diuron, Endurance, Escort XP, Karmex DF, Krovar I DF, Oust, Pendulum 3.3 EC, Pendulum WDG, Plateau, Princep DF, Princep 4L, Ronstar, Sahara DG, Simazine, Surflan AS Specialty, Telar DF, Vanquish]

For annual weeds, apply 22 fluid ounces of this product per acre when weeds are less than 6 inches tall, 32 fluid ounces per acre when weeds are 6 to 12 inches tall and 44 fluid ounces per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 44 fluid ounces to 3.3 quarts per acre in these tank-mixes. For application of tank mixtures using a backpack sprayer, handgun or other hand-held applicator, see the "ANNUAL WEEDS RATE SECTION" of this label under Annual Weeds—Hand-Held and Backpack Sprayers for the required concentration of this product in the mix.

PRECAUTIONS, RESTRICTIONS: Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**13.2 Greenhouse/Shadehouse**

USE INSTRUCTIONS: This product may be used to control weeds in and around greenhouses and shadehouses.

PRECAUTIONS, RESTRICTIONS: Desirable vegetation must not be present during application and air circulation fans must be turned off until after the application has dried. Do not use in residential greenhouses.

**13.3 Chemical Mowing**

USE INSTRUCTIONS: This product may be used to suppress growth of perennial grasses listed in this section along farm ditches and on any other part of the farmstead to serve as a substitute for mowing. Apply 4 fluid ounces of this product per acre to suppress Kentucky bluegrass, tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers, or 11 fluid ounces to suppress bermudagrass, or 44 fluid ounces to suppress torpedograss or paragrass. Make all applications in 10 to 20 gallons of spray solution per acre.

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

**13.4 Cut Stump Application**

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

USE INSTRUCTIONS: This product may be used to control re-growth of cut stumps and re-sprouts of many species of woody brush and trees. Cut the trees or re-sprouts close to the soil surface and immediately apply a 50- to 100-percent solution of this product to the freshly cut surface using application equipment capable of covering the entire cambium. Delays in application could result in reduced performance. For best results, cut the woody brush and trees during periods of active growth and full leaf

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expansion and apply this treatment. Some of the species controlled by this product and method of application are:

Alder	Oak	Reed, giant	Tan oak
Eucalyptus	Pepper, Brazilian	Saltcedar	Willow
Madrone	Pine, Austrian	Sweetgum	

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

**13.5 Habitat Management**

TYPES OF USES: Habitat Restoration and Maintenance, Wildlife Food Plots

**Habitat Restoration and Maintenance**

USE INSTRUCTIONS: This product may be used to control exotic and other undesirable vegetation in habitat management areas. Application may be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatment may be used 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 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.

PRECAUTIONS, RESTRICTIONS: There are no rotational restrictions for planting any wildlife food species or for allowing native species to repopulate the area following application of this product.

**14.0 ANNUAL WEEDS RATE SECTION**

When water carrier volumes are between 16 and 40 gallons per acre for ground application, and between 6 and 15 gallons per acre for aerial application, the following use rates will control the annual weeds listed in the "ANNUAL WEEDS RATE TABLE" that follows.

- 22 fluid ounces per acre—grasses and broadleaf annual weeds less than 6 inches in height or circumference, and vines less than 3 inches in length
- 32 fluid ounces per acre—grasses and broadleaf annual weeds 6 to 12 inches in height or circumference, and vines 3 to 6 inches in length
- 44 fluid ounces per acre—grasses and broadleaf annual weeds greater than 12 inches in height or circumference, and vines greater than 6 inches in length

**WHEN WATER CARRIER VOLUMES ARE BETWEEN 3 AND 15 GALLONS PER ACRE FOR GROUND APPLICATION, AND BETWEEN 3 AND 5 GALLONS PER ACRE FOR AERIAL APPLICATION, USE THE RATES SPECIFIED FOR INDIVIDUAL WEEDS AS FOLLOWS IN THE "ANNUAL WEEDS RATE TABLE".**

Apply to actively growing annual weeds. Annual weeds are often easiest to control when they are small. Older, mature (hardened) and otherwise tough to control annual weed species could require higher rates than specified in this table, even if they meet the size requirements listed. This product may be used up to

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44 fluid ounces per acre for tough-to-control annual weeds and where heavy weed densities exist. Follow all precautions and restrictions, including maximum application rates and crop stage timings specified in the instructions for the crops, including Roundup Ready crops, and use sites listed on this label.

Maximum size refers to the maximum plant height, length of runners for vines or circumference of rosette plants in inches.

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 re-growth to occur prior to treatment with this product.

**ANNUAL WEEDS RATE TABLE**

WEED SPECIES	RATE				
	(fluid ounces per acre)				
	11	16	22	27	32
	Maximum height/length (in inches)				
Ammannia, purple	3	6	12	-	18
Anoda, 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
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

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Cutleaf evening primrose	-	-	3	-	6
Devilsclaw (unicorn plant)	-	3	6	-	-
Dwarfdandelion	12	-	-	-	-
Eastern mannagrass	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 ( <i>Conyza bonariensis</i> )*	-	-	6	-	10
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	-	-
Groundcherry	-	3	6	-	9
Groundsel, common	-	6	10	-	-
Hemp sesbania	-	2	4	6	8
Henbit	-	-	6	-	12
Horseweed/ Marestalk * ( <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 * 4	-	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

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Nightshade, hairy	-	4	6	-	12
Oats	3	6	18	-	-
Pigweed, Palmer *	-	12	18	24	-
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, volunteer/cereal <sup>2</sup>	6	18	18 +	-	-
Ryegrass species *	-	-	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, (overwintered)	-	6	12	-	18
Wild oats	3	6	18	-	-
Wild proso millet	-	6	12	-	18
Witchgrass	-	12	-	-	-
Woolly cupgrass	-	6	12	-	-
Yellow rocket	-	12	20	-	-

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- <sup>1</sup> For control of downy brome in no-till systems, use 16 fluid ounces of this product per acre.
- <sup>2</sup> Performance of this product is better if application is made before this weed reaches the boot stage of growth.
- <sup>3</sup> Apply 16 fluid ounces of this product per acre to control wild buckwheat in the cotyledon to 2-leaf stage. Apply 22 fluid ounces per acre to control 2- to 4-leaf wild buckwheat. For better control of wild buckwheat over 2 inches in size, use sequential applications of 22 fluid ounces followed by 22 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. If possible, use a tank mixture with 2,4-D, as described below to improve control.
- \* A glyphosate-resistant biotype has been confirmed. For additional information, refer to the "WEED RESISTANCE MANAGEMENT" section of this label. You may also visit on the Internet, [www.weedscience.org](http://www.weedscience.org) or [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com), or contact your Monsanto representative.

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

Better control of certain tough weeds can be achieved by tank-mixing this product with 0.25 pound of dicamba, or 0.5 pound of 2,4-D, or 1 to 2 fluid ounces of Tordon 22K per acre. These other herbicides, combined with the rate of this product specified in the "ANNUAL WEEDS RATE TABLE", will control the following weeds up to 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).

At rates given in the "ANNUAL WEEDS RATE SECTION," this product will control the following weeds up to a maximum height or length of 6 inches: common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf. For better control, tank-mix this product with 0.5 pound of 2,4-D per acre.

Ensure that the specific product being used is labeled for application at the desired site. Follow all precautions and limitations on the tank-mix product label, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines. Use according to the more restrictive label requirements. Some crop injury could occur if dicamba or Tordon 22K is applied within 45 days of planting.

**14.2 Annual Weeds—Hand-Held and Backpack Sprayers**

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE," apply a 0.4-percent solution of this product to weeds less than 6 inches in height or runner length prior to seedhead formation in grasses or bud formation in broadleaf weeds. For control of annual weeds over 6 inches tall, or unless otherwise specified, use a 0.7-percent solution.

For best results, use a 1.5-percent solution of this product 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, apply a 4-percent solution for annual and perennial weeds, and a 4- to 7-percent solution for woody brush and trees.

**14.3 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.

Applications of 16 to 20 fluid ounces of this product, plus 1 to 2 pounds of atrazine, per acre will control the following weeds: barnyardgrass (requires 20 fluid ounces for control), downy brome, green foxtail,



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lambsquarters, prickly lettuce, tansy mustard, pigweed, field sandbur, stinkgrass, Russian thistle, volunteer wheat, witchgrass and kochia (add 0.12 pound of dicamba for control). Ensure that the specific atrazine or dicamba product being used is labeled for application on the desired site. Follow all precautions and limitations on the tank-mix product label, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines.

**15.0 PERENNIAL WEEDS RATE SECTION**

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 specified stage.

Repeat treatments might 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.

**PERENNIAL WEEDS RATE TABLE**

<b>Weed Species</b>	<b>Rate (QT/A)</b>	<b>Water Volume (GPA)</b>	<b>Hand-Held % Solution</b>
<b>Alfalfa</b>	1 – 1.5	3 – 10	1.5%
Apply after the last hay cutting in the fall. Allow alfalfa to re-grow to a height of 6 to 8 inches or more prior to treatment. Follow application with deep tillage at least 7 days after treatment, but before soil freeze-up.			
<b>Alligatorweed</b>	3	3 – 20	1%
For partial control, apply when most of the plants are in bloom. Repeat applications will be required to achieve control.			
<b>Anise (fennel)<sup>1</sup></b>	–	–	1 - 1.5%
Apply as a spray-to-wet treatment.			
<b>Bahiagrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Bentgrass</b>	1	10 – 20	1.5%
For suppression in grass seed production areas. For ground application only. Ensure entire crown area has resumed growth prior to a fall application. Ensure that bentgrass has at least 3 inches of growth before application. Avoid tillage prior to treatment. Tillage 7 to 10 days after application provides best results.			
<b>Bermudagrass</b>	2 – 3.3	3 – 20	1.5%
For control, apply 3.3 quarts of this product per acre. For partial control, apply 64 fluid ounces per acre. Treat when bermudagrass is actively growing and seedheads are present. Re-treatment might be necessary to achieve control.			
<b>Bermudagrass, water (knotgrass)</b>	0.7 – 1	5 – 10	1.5%
Apply 32 fluid ounces of this product in 5 to 10 gallons of water per acre when water bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field. For fall application, till fallow fields prior to application of 22 fluid ounces of this product in 5 to 10			

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gallons of water per acre. 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>	0.4 – 3.3	3 – 20	1.5%
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Do not treat field bindweed under drought stress, as good soil moisture is necessary for active growth.

For control, apply 2.5 to 3.3 quarts of this product per acre west of the Mississippi River and 2 to 2.5 quarts per acre east of the Mississippi River when bindweed is at or beyond full bloom. For best results, apply in late summer or fall. Fall treatment must be applied before a killing frost.

Also for control, apply 44 fluid ounces of this product, plus 0.5 pound of dicamba, in 10 to 20 gallons of water per acre. Do not apply this mixture by air.

For suppression on irrigated agricultural land, apply 22 to 44 fluid ounces of this product, plus 1 pound of 2,4-D, in 10 to 20 gallons of water per acre using ground application equipment only. Application may be made following harvest or in fall fallow ground when bindweed is actively growing and the majority of runners are 12 inches or more in length. Irrigate at least once to promote active bindweed growth.

For suppression, apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre using ground application equipment, or in 3 to 5 gallons of water per acre using aerial application equipment. Apply by air in fallow and reduced tillage systems only. Delay application until maximum emergence has occurred and when vines are 6 to 18 inches in length.

**In California only**, apply 22 fluid ounces to 3.3 quarts 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 22 fluid ounces of this product in 3 to 10 gallons of water per acre 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>	0.7 – 1.5	3 – 40	1.5%
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Apply 44 fluid ounces 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 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing plants when most have reached 4 to 12 inches in height.

<b>Bluweed, Texas</b>	2 – 3.3	3 – 40	1.5%
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Apply 2.5 to 3.3 quarts of this product per acre west of the Mississippi River or 2 to 2.5 quarts per acre east of the Mississippi River when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatment must be applied before a killing frost.

<b>Brackenfern</b>	2 – 3	3 – 40	1%
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Apply to fully expanded fronds that are at least 18 inches long.

<b>Bromegrass, smooth</b>	0.7 – 1.5	3 – 40	1.5%
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Apply 44 fluid ounces 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 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing plants when most have reached 4 to 12 inches in height.

<b>Bursage, woolly-leaf</b>	–	3 – 20	1.5%
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For control, apply 44 fluid ounces of this product plus 0.5 pound of dicamba per acre when plants are producing new active growth that has been initiated by moisture for at least 2 weeks, and when plants are at or beyond flowering. For partial control, apply 22 fluid ounces of this product plus 0.5

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pound of dicamba per acre.

<b>Canarygrass, reed<sup>2</sup></b>	1.5 – 2	3 – 40	1.5%
<b>Cattail<sup>2</sup></b>	2 – 3.3	3 – 40	1.5%
<b>Clover; red or white<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
Also for control, apply 11 to 22 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>	2 – 3.3	10 – 40	1.5%
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 might be necessary to achieve control.			
<b>Dallisgrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Dandelion<sup>1</sup></b>	2 – 3.3	3 – 40	1.5%
Also for control, apply 11 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>	2 – 3.3	3 – 40	1.5%
Also for control, apply 11 to 22 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>	3	3 – 40	1.5%
Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to re-grow to a mature stage prior to treatment. For best results, apply in late summer or fall.			
For suppression, apply 11 fluid ounces of this product, plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre for ground application, and 3 to 5 gallons of water per acre for aerial applications. Delay application until maximum emergence of dogbane has occurred.			
<b>Fescue (except tall)<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Fescue, tall</b>	0.7 – 2	3 – 40	1.5%
Apply 64 fluid ounces of this product per acre when most plants have reached boot to early seedhead stage of development.			
For fall application, apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre when plants have 6 to 12 inches of new growth. A sequential application of 11 fluid ounces of this product per acre will improve long-term control and will control seedlings germinating after fall treatment or in the following spring.			
<b>Guineagrass</b>	1.5 – 2	3 – 40	1%
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 the ridge of Florida, use 44 fluid ounces of this product per acre for control. In the flatwoods region of Florida, 64 fluid ounces per acre is required for control.			
<b>Horsenettle<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Horseradish</b>	3	3 – 40	1.5%
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>	–	–	1.5 - 2%

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Thorough coverage is necessary for best control.

<b>Jerusalem artichoke<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Johnsongrass</b>	0.4 – 2	3 – 40	1%

In annual cropping systems, apply 22 to 44 fluid ounces of this product in 3 to 10 gallons of water per acre. Use 44 fluid ounces of this product when applying 10 to 40 gallons of water per acre. In non-crop areas, or areas where annual tillage is not practiced (no-till), apply 44 to 64 fluid ounces 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 development 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 22 fluid ounces of this product per acre.

For burndown of johnsongrass, apply 11 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.

For partial control or suppression, apply a 0.7-percent solution of this product as a spot treatment when johnsongrass is 12 to 18 inches in height. Ensure that coverage is uniform and complete.

<b>Kikuyugrass</b>	1.5 – 2	3 – 40	1.5%
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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>	3	3 – 40	1.5%
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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>	–	–	1%
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Apply at or beyond the bloom stage of growth.

<b>Lespedeza<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
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<b>Milkweed, common</b>	2	3 – 40	1.5%
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Apply when most plants have reached the late bud to flower stage of growth.

<b>Muhly, wirestem</b>	0.7 – 1.5	3 – 40	1.5%
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Apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre. Use 44 fluid ounces of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or non-crop areas. Spray when wirestem muhly is 8 inches or more in height. Do not till between harvest and fall application, or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage.

<b>Mullein, common<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
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<b>Napiergrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
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<b>Nightshade, silverleaf</b>	1.5	3 – 10	1.5%
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For best results, apply when at least 60 percent of the plants have berries. Fall application must be made before a killing frost.

**Nutsedge,**

<b>purple or yellow</b>	0.4 – 2	3 – 40	1 – 1.5%
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Apply 64 fluid ounces of this product per acre or a 1- 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 rhizome tips. Nutlets that have not germinated will not be controlled and could germinate following treatment. Repeat treatments will be required for long-term control of

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ungerminated tubers.

Sequential applications of 22 to 44 fluid ounces of this product in 3 to 10 gallons of water per acre when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall) will also provide control. 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 11 to 44 fluid ounces of this product in 3 to 40 gallons of water per acre when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat applications will be required to control subsequent emerging plants or re-growth of existing plants.

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<b>Orchardgrass</b>	0.7 – 1.5	3 – 40	1.5%
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Apply 44 fluid ounces 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 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre when plants are actively growing and have reached 4 to 12 inches in height.

For orchardgrass sods going to no-till corn, apply 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre to orchardgrass that is a minimum of 12 inches tall for spring application and 6 inches tall for fall application. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

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<b>Pampasgrass</b>	–	–	1 – 1.5%
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Apply when pampasgrass is at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

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<b>Paragrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
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<b>Phragmites</b>	2 – 3.3	10 – 40	1 – 1.5%
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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 could result in reduced control. Due to the dense nature of this vegetation, which could prevent good spray coverage, and uneven stages of growth, repeat treatments might be necessary to achieve control. Visual symptoms of control will be slow to develop.

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<b>Poison hemlock</b>	–	–	1 – 1.5%
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Apply as a spray-to-wet treatment using a hand-held sprayer. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Thorough coverage is necessary for best control.

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<b>Pokeweed, common</b>	1	3 – 40	1.5%
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Apply to actively growing plants up to 24 inches tall.

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<b>Quackgrass</b>	0.7 – 2	3 – 40	1.5%
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In annual cropping systems, or in pastures and sods followed by deep tillage, apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre, or 44 fluid ounces in 10 to 40 gallons of water per acre when quackgrass is 6 to 8 inches in height. Do not tank-mix with residual herbicides when using the 22-fluid-ounce rate. Do not till between harvest and fall application, or in the 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 44 to 64 fluid ounces of this product in 10 to 40 gallons of water per acre when quackgrass is greater than 8 inches tall.

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<b>Redvine</b>	0.5 – 1.5	5 – 10	1.5%
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For suppression, make two applications of 16 fluid ounces of this product 7 to 14 days apart, or a

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single application of 44 fluid ounces, in 5 to 10 gallons of water per acre 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. Apply at least 1 week before a killing frost.

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<b>Reed, giant</b>	-	-	1.5%
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Best results are obtained when application is made in late summer to fall.

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<b>Ryegrass, perennial</b>	0.7 - 2	3 - 40	1%
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In annual cropping systems, apply 22 to 44 fluid ounces of this product in 3 to 10 gallons of water per acre, or 44 fluid ounces when applying 10 to 40 gallons of water per acre. In non-crop areas, or areas where annual tillage is not practiced (no-till), apply 44 to 64 fluid ounces 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 applying 22 fluid ounces of this product per acre.

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<b>Smartweed, swamp<sup>1</sup></b>	2 - 3.3	3 - 40	1.5%
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Also for control, apply 11 fluid ounces of this product, plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre in late summer or fall.

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<b>Sowthistle, perennial</b>	1.5 - 2	3 - 40	1.5%
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Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to application of this product. Fall treatment must be made before a killing frost. Allow 3 or more days after application before tillage.

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<b>Spurge, leafy</b>	-	3 - 10	1.5%
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For suppression, apply 11 fluid ounces of this product, plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre in late summer or fall. If mowing has occurred prior to treatment, apply when most plants are 12 inches tall.

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<b>Starthistle, yellow</b>	1.5	10 - 40	1.5%
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Best results are obtained when application is made during the rosette, bolting or early flower stage.

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

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

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<b>Thistle, Canada</b>	1.5 - 2	3 - 40	1.5%
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Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to application of this product. Fall treatment must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression in the spring, apply 22 fluid ounces of this product alone, or 11 fluid ounces of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre. Allow rosette to re-grow to a minimum of 6 inches in diameter before treating. Application may 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.

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<b>Timothy<sup>2</sup></b>	1.5 - 2	3 - 40	1.5%
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<b>Torpedograss</b>	2.5 – 3.3	3 – 40	1.5%
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 treatment must be applied before frost.			
<b>Trumpet creeper</b>	1.5	5 – 10	1.5%
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. Apply at least 1 week before a killing frost.			
<b>Vaseygrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Velvetgrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Wheatgrass, western<sup>2</sup></b>	1.5 – 2	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.

**16.0 WOODY BRUSH AND TREES RATE SECTION**

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 application is made in the spring to early summer when brush species are at high moisture content and 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 might not appear prior to frost or senescence following fall treatment.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments might 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 could result if fall treatment is made following a frost.

**WOODY BRUSH AND TREES RATE TABLE**

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alder	2 – 3	1%
Ash <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Aspen, quaking	1.5 – 2	1%
Bearmat (Bearclover) <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Beech <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Birch	1.5 – 2	1%
Blackberry	2 – 3	1%

Apply after plants have reached full leaf maturity. Best results are obtained when application is made in late summer or fall. Application 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 0.7-percent solution of this product. For control of blackberry after leaf drop and until killing frost or as long as stems are green, apply 2 to 2.5 quarts of this

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product in 10 to 40 gallons of water per acre.		
Blackgum	1.5 – 3.3	1 – 1.5%
Bracken	1.5 – 3.3	1 – 1.5%
Broom; French, Scotch	–	1 – 1.5%
Buckwheat, California <sup>1,2</sup>	–	1 – 1.5%
Cascara <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Catsclaw <sup>1</sup>	–	1%
Ceanothus <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Chamise <sup>2</sup>	–	1%
Cherry; bitter, black, pin	1.5 – 2	1%
Coyote brush	–	1 – 1.5%
Apply when at least 50 percent of the new leaves are fully developed.		
Dogwood <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Elderberry	1.5 – 2	1%
Elm <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Eucalyptus	–	1.5%
For control of eucalyptus re-sprouts, apply when re-sprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed eucalyptus plants.		
Florida holly (Brazilian Peppertree) <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Gorse <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Hasardia <sup>1,2</sup>	–	1 – 1.5%
Hawthorn	1.5 – 2	1%
Hazel	1.5 – 2	1%
Hickory <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Honeysuckle	2 – 3	1%
Hornbeam, American <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Kudzu	2.5 – 3.3	1.5%
Repeat applications might be required to achieve control.		
Locust, black <sup>1</sup>	1.5 – 3	1 – 1.5%
Madrone re-sprouts <sup>1</sup>	–	1.5%
Apply to re-sprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatment.		
Manzanita <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Maple, red	1.5 – 3	1%
Apply a 1-percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 44 to 86 fluid ounces of this product per acre.		
Maple, sugar	–	1%
Apply when at least 50 percent of the new leaves are fully developed.		



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Monkey flower <sup>1,2</sup>	–	1 – 1.5%
Oak; black, white <sup>1</sup>	1.5 – 3	1 – 1.5%
Oak, post	2 – 3	1%
Oak, northern	–	1%
Apply when at least 50 percent of the new pin leaves are fully developed		
Oak, southern red	1.5 – 2	1%
Persimmon <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Pine	1.5 – 3.3	1 – 1.5%
Poison ivy/Poison oak	2.5 – 3.3	1.5%
Repeat applications are likely to be required to achieve control. Fall treatment must be applied before leaves lose green color.		
Poplar, yellow <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Redbud, eastern	1.5 – 3.3	1 – 1.5%
Rose, multiflora	1.5	1%
Make application prior to leaf deterioration by leaf-eating insects.		
Russian olive <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sage, black <sup>2</sup>	–	1%
Sage, white <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sagebrush, California <sup>2</sup>	–	1%
Salmonberry	1.5 – 2	1%
Saltcedar	1.5 – 3.3	1 – 1.5%
Sassafras <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sourwood <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sumac; poison, smooth, winged <sup>1</sup>	1.5 – 3	1 – 1.5%
Sweetgum	1.5 – 2	1%
Swordfern <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Tallowtree, Chinese <sup>2</sup>	–	1%
Tan oak re-sprouts <sup>1</sup>	–	1.5%
Apply to re-sprouts that are less than 3 to 6 feet tall. Best results are obtained with fall application.		
Thimbleberry	1.5 – 2	1%
Tobacco, tree <sup>1</sup>	–	1 – 1.5%
Trumpetcreeper	1.5 – 2	1%
Vine maple <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Virginia creeper	1.5 – 3.3	1 – 1.5%
Waxmyrtle, southern <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Willow	2 – 3	1%

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<sup>1</sup> Partial Control

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

**17.0 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. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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 extent consistent with applicable 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, failure of this product to control weed biotypes which develop resistance to glyphosate, 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 in-crop (over-the-top) uses on Roundup Ready crops, 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.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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 TO THE EXTENT CONSISTENT WITH APPLICABLE 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, CROPSHIELD, Degree, Degree Xtra, Harness, INTRRO, Lariat, Micro-Tech, Monsanto and Vine symbol, Roundup, Roundup Ready, and Transorb are trademarks of Monsanto Technology LLC.

All other trademarks are the property of their respective owners.

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This product is protected by U.S. Patent No's. 5,668,085, RE 37,866, and 6,365,551. Other patents pending. No license granted under any non-U.S. patent(s).

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II. MAIN LABEL FOR FOOD CROP USES

EPA Reg. No 524-539

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In case of an emergency involving this product,  
call collect, day or night, (314) 694-4000.

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Packed for:

MONSANTO COMPANY  
800 N. LINDBERGH BLVD.  
ST. LOUIS, MISSOURI, 63167 USA

© [DATE]

**III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES**

**[INSERT BRAND NAME]**  
Herbicide

The complete broad-spectrum postemergence herbicide for non-crop, industrial, turf and ornamental weed control.

**Complete Directions for Use**

EPA Reg. No. 524-539

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, AS SEVERE INJURY OR DESTRUCTION IS LIKELY TO RESULT.

Read the entire label before using this product.

Use only according to label instructions.

Not all products listed 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.

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**1.0 INGREDIENTS**

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its potassium salt.....	48.7%
OTHER INGREDIENTS:.....	<u>51.3%</u>
	100.0%

\*Contains 660 grams of the active ingredient glyphosate, in the form of its potassium salt per liter or 5.5 pounds per U.S. gallon, which is equivalent to 540 grams of the acid, glyphosate per liter or 4.5 pounds per U.S. gallon.

This product is protected by U.S. Patent No's. 5,668,085 and 6,365,551. Other patents pending. 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

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

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!**

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist.

<b>FIRST AID:</b> Call a poison control center or doctor for treatment advice.	
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye.</li> </ul>
<b>IF ON SKIN</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> </ul>
<ul style="list-style-type: none"> <li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li> <li>• You may also contact <b>(314) 694-4000</b>, collect day or night, for emergency medical treatment information.</li> <li>• This product is identified as <b>[INSERT BRAND NAME], EPA Registration No. 524-539.</b></li> </ul>	

**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)**

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

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

*OR the following alternate PPE requirements may be substituted:*

**Mixers, Loaders, Other Handlers and Applicators, when handling this concentrated product or its application solutions of 30 percent concentration or greater, must wear:** long-sleeved shirt and long pants, shoes, socks and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

**Applicators, when handling only spray solutions where concentration is 30 percent of this product or less, must wear:** long-sleeved shirt and long pants, shoes, and socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

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

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 clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**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 wash waters.

**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 can form a highly combustible gas mixture. This gas mixture could flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source, causing serious personal injury.

**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 Internet at [www.agrian.com](http://www.agrian.com), [www.cdms.net](http://www.cdms.net) or [www.greenbook.net](http://www.greenbook.net), or obtained from your Authorized Monsanto Retailer or Monsanto Company Representative.

**The following paragraph is reserved and will only appear on final printed labeling for products under this registration if and when required by EPA:**

**ENDANGERED SPECIES PROTECTION REQUIREMENTS:** This product may have effects on federally listed threatened or endangered species or their critical habitat in some locations. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult <http://www.epa.gov/espp/>, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

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.

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

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, is: 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.

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 or disposal.

**PESTICIDE STORAGE:** 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



III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or **[INSERT COMPANY NAME]** at **[INSERT PHONE NUMBER]**.] 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 statement:* This container is not to be sold to homeowners for residential use.]

**[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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or **[INSERT COMPANY NAME]** at **[INSERT PHONE NUMBER]**.] 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

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

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

[Optional container statement: This container is not to be sold to homeowners for residential use.]

[Optional text on outer cardboard packaging: THIS SIDE UP]

[Optional text on outer cardboard packaging: Pull at scored pullouts for easier opening]

[Optional text on outer cardboard packaging: TWO 2.5 GAL UNITS]

**[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NON-REFILLABLE 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 and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. 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 agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [Optional container disposal statement: To find the nearest site, contact your chemical dealer or **[INSERT COMPANY NAME]** at **[INSERT PHONE NUMBER]**.] 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 disposal statement: Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (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.

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

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.

[Optional container disposal statement: To obtain information about recycling refillable containers, contact [INSERT COMPANY NAME] at [INSERT PHONE NUMBER].]

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling, Contact 1-800-ROUNDUP (1-800-768-6387)]

[Optional additional container label statements for the CUBE refillable packaging system only:

**CUBE** Monsanto Refillable Delivery System  
2011 Compliant Meets 40 CFR Part 165 Subpart C - Refillable Container Standards

FEATURES INCLUDE:

- Automatic Venting
  - Heavy duty one-way 2-inch camloc ball valve with protective shield door
  - Complete coated steel protective enclosure
  - Durable 4-way plastic pallet
- Lift door to access one-way valve]

[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 PRODUCT INFORMATION**

**Product Description:** This product is a postemergence, systemic herbicide with no soil residual activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid containing surfactant and no additional surfactant is needed.

**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 that advances to complete browning of aboveground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds, effects might not be visible for 7 or more days. Extremely cool or cloudy weather following treatment could 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.

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

**Cultural Considerations:** Reduced control could result when application is made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to re-grow to the recommended stage for treatment.

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

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

**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 affected. Plants arising from unattached underground rhizomes or rootstocks of perennials that have not yet emerged at the time of application will not be affected by this herbicide and will continue to grow.

**Maximum Application Rates:** The maximum application or use rates stated throughout this product 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 the 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. See the "INGREDIENTS" section of this label for necessary product information.

The combined total of all treatments must not exceed 7 quarts of this product (8 pounds of glyphosate acid) per acre per year.

**ATTENTION**

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, AS SEVERE INJURY OR DESTRUCTION COULD RESULT.

AVOID DRIFT. USE EXTREME CARE 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 as 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 have 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 can contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides can 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 weed management practices:

- Scout your application site before and after herbicide application.
- Control weeds early when they are relatively small.
- Incorporate other herbicides (e.g., a selective and/or a residual herbicide) and cultural or mechanical practices (e.g., tillage) as part of your weed control system where appropriate.

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

- Use the application rate for the most difficult to control weed on the site. Avoid tank mixtures with other herbicides that reduce efficacy of this product (through antagonism) or with ones that encourage application 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 of Glyphosate-Resistant Weed Biotypes**

**NOTE:** Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed 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 result from the failure of this product to control glyphosate-resistant weed biotypes.

The following good weed management practices can 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 can also be used as appropriate.
- Scout treated sites after herbicide application and control escapes, including 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 may 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.**

Eliminate any risk of siphoning the contents of the tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by State or local regulations.

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

**6.1 Mixing with Water**

**PRODUCT PERFORMANCE CAN BE SIGNIFICANTLY REDUCED IF WATER CONTAINING SOIL SEDIMENT IS USED AS CARRIER. DO NOT MIX THIS PRODUCT WITH WATER FROM PONDS AND DITCHES THAT IS VISIBLY MUDDY OR MURKY.**

This product mixes readily with water. Mix spray solutions of this product as follows: Begin filling the mixing tank or spray tank with clean water. Add the required amount of this product near the end of the filling process and mix gently. Use caution to avoid siphoning back into the carrier source. During mixing,

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foaming of the spray solution can occur. To prevent or minimize foaming, mix gently, terminate by-pass and return lines at the bottom of the tank and, if necessary, use an 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 a tank-mix with a generic active ingredient, such as 2,4-D, atrazine, dicamba, diuron, or pendimethalin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the specific product being used in the mix.

Refer to all individual product labels, supplemental labeling and Fact Sheets for all products in the tank mixture, and observe all precautions and limitations on the label, including application timing restrictions, soil restrictions. Use according to the most restrictive precautionary statements for each product in the tank mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities in advance.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers could result in reduced weed control. Monsanto has not tested all tank-mix product formulations for compatibility, antagonism or reduction in product performance. 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 specified on this label or in separate supplemental labeling or Fact Sheets published for this product.

**6.3 Tank-Mixing Procedure**

Add individual tank-mix components to the tank as follows: wettable powders, flowables, emulsifiable concentrates, drift reduction additives, water soluble liquids (this product), surfactants.

Maintain good agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, thorough agitation is required to re-suspend 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.

**6.4 Mixing for Hand-Held Sprayers**

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

Desired Volume	Amount of [INSERT BRAND NAME]					
	0.4%	0.7%	1%	1.5%	4%	7%
1 gal	0.5 oz	1 oz	1.3 oz	2 oz	5 oz	9 oz
25 gal	0.8 pt	0.7 qt	1 qt	1.5 qt	4 qt	7 qt
100 gal	1.6 qt	2.8 qt	1 gal	1.5 gal	4 gal	7 gal

2 tablespoons = 1 fluid ounce

For backpack, knapsack or pump-up sprayers, consider mixing the appropriate amount of this product with water in a larger container and then filling the sprayer from this larger container.

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#### 6.5 Colorants and Dyes

Colorants or marking dyes may be added to spray solutions of this product; however, they can reduce performance of this product. Use colorants or dyes according to the manufacturer's directions.

#### 7.0 APPLICATION EQUIPMENT AND TECHNIQUES

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

APPLY SPRAY SOLUTIONS OF THIS PRODUCT IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

##### 7.1 Aerial Application Equipment

DO NOT APPLY SOLUTIONS OF THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS SPECIFIED ON THIS LABEL.

FOR AERIAL APPLICATION IN ARKANSAS AND CALIFORNIA, OR SPECIFIC COUNTIES THEREIN, REFER TO THE FEDERAL SUPPLEMENTAL LABELING FOR AERIAL APPLICATION OF THIS PRODUCT IN THAT STATE OR COUNTY FOR SPECIFIC USE INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

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

Avoid direct application to any body of water.

Use this herbicide at the appropriate rate as described on this label in 3 to 25 gallons of water per acre, unless otherwise specified on this label or in separate supplemental labeling or Fact Sheets published for this product.

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. Do not attempt to increase flow rate by increasing nozzle pressure.

Drift control additives may be used. Read and follow the directions for use and all precautionary statements on the additive label.

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

**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 COULD RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. Maintaining an organic coating (paint) that meets aerospace specification MIL-C-38413 can help prevent corrosion.

#### SPRAY DRIFT MANAGEMENT

AVOID DRIFT. USE EXTREME CARE WHEN APPLYING THIS PRODUCT IN ORDER TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

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

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

#### AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial application.

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 must 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 listed 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 could further reduce drift without reducing swath width.
- **Application height:** Applications must be made at a height of 10 feet or less above the top of the largest plants unless a greater height is required for aircraft safety. Making the application at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

#### Swath Adjustment

When an application is 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. Increase the swath adjustment distance 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 when wind speeds are below 2 miles per hour due to variable wind direction and high inversion potential. **NOTE:**



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Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect drift.

#### **Temperature and Humidity**

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**

Do not apply 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 sunsets 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).

Avoid direct application to any body of water.

#### **7.2 Ground Broadcast Equipment**

Apply this product at the appropriate rate in 3 to 40 gallons of water per acre when making a broadcast application using ground application equipment, unless otherwise specified on this label, or in separate supplemental labeling or Fact Sheets published for this product. As the weed density increases, increase the spray volume towards the upper end of this range to ensure complete coverage. Carefully select proper nozzles that will avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check spray pattern for uniform distribution of spray droplets.

#### **7.3 Hand-Held and Backpack Sprayers**

Apply spray solutions of this product to foliage of vegetation to be controlled. For best results, ensure that spray coverage is uniform and complete. Use coarse sprays only. For application made using a spray-to-wet basis, do not spray to the point of runoff.

For low-volume directed spray applications, ensure that spray coverage is uniform and complete with at least 50 percent of the foliage or the top one-half of the plant contacted. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, or when foliage is thick and dense, or where there are multiple sprouts.

#### **7.4 Selective Application Equipment**

This product may be diluted in water and applied using a shielded applicator, hooded sprayer, wiper applicator or sponge bar to weeds listed on this label growing in any non-crop site specified on this label.

**AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION, AS SERIOUS INJURY OR DEATH IS LIKELY TO OCCUR.**

#### **Shielded and Hooded Sprayers**

A shielded sprayer directs the herbicide solution to the target weeds while protecting desirable vegetation from being contacted by the herbicide spray with an impervious material or shield. A hooded sprayer is a

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type of shielded sprayer where the spray pattern is fully enclosed, including the top, sides, front and back, thereby shielding desirable vegetation from the spray solution. 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 THIS HERBICIDE WITH DESIRABLE VEGETATION.

**Wiper Applicator**

A wiper applicator is a device that physically wipes this product directly onto the weed. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation.

Adjust the height of the wiper applicator to ensure adequate contact with weeds and so that the wiper contact point is at least 2 inches above the desirable vegetation. Better results can be obtained when more of the weed is exposed to the herbicide solution and weeds are a minimum of 6 inches above the desirable vegetation. Weeds not contacted by the herbicide solution will not be affected. Poor contact can occur when weeds are growing in dense clumps, when operating in severe weed infestations or when weed height varies dramatically. In these instances, repeat treatments might be necessary.

Operate wiper applicators at ground speeds of no greater than 5 miles per hour. Performance can be improved by reducing speed in areas of heavy weed infestations, which allows more time for re-saturation of the wiper with the herbicide solution. Better results can be obtained when two applications are made in opposite directions.

Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation can result in discoloration, stunting or destruction. Avoid leakage or dripping onto desirable vegetation. Keep wiper surfaces clean. Be aware that on sloping ground the herbicide solution can migrate to one side, causing dripping on the lower end and drying of the wicks on the upper end of the wiper applicator.

Do not use wiper applicators when weeds are wet.

Mix only the amount of this product that will be used during a 1-day period, as reduced product performance can result from the use of solutions held in storage. Clean wiper parts promptly after using this product by thoroughly flushing with water.

**For Rope or Sponge Wick Applicators**—use solutions ranging from 25 to 70 percent of this product in water.

**For Panel Applicators and pressure-feed systems**—use solutions ranging from 25 to 100 percent (undiluted) of this product in water.

When applied as directed, this product CONTROLS the following weeds:

- |                 |                  |
|-----------------|------------------|
| Corn, volunteer | Sicklepod        |
| Panicum, Texas  | Spanishneedles   |
| Rye, common     | Starbur, bristly |
| Shattercane     |                  |

When applied as directed, this product SUPPRESSES the following weeds:

- |                     |                 |
|---------------------|-----------------|
| Beggarweed, Florida | Ragweed, common |
| Bermudagrass        | Ragweed, giant  |
| Dogbane, hemp       | Smutgrass       |
| Dogfennel           | Sunflower       |
| Guineagrass         | Thistle, Canada |

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Johnsongrass	Thistle, musk
Milkweed	Vaseygrass
Nightshade, silverleaf	Velvetleaf
Pigweed, redroot	

#### 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.

#### 7.6 Controlled Droplet Applicator (CDA)

The amount of this product applied per acre using a controlled droplet application (CDA) must be no less than the amount specified on this label for application using conventional broadcast application equipment.

Apply the appropriate amount of this product in 2 to 15 gallons of water per acre when using a vehicle-mounted CDA.

Controlled droplet applicators produce a spray pattern that is not easily visible. Extreme care must be taken to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction of the plant could result.

#### 8.0 SITE AND USE INSTRUCTIONS [Alternate title: INDUSTRIAL, TURF AND ORNAMENTAL SITE USES]

This product may be used in non-crop areas, including airports, apartment complexes, commercial sites, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, public areas, railroads, rangeland, recreation areas, residential areas, rights-of-way, roadsides, schools, shadehouses, sports complexes, storage areas, substations, turfgrass areas, 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 nurseries, sod or turf seed farms.

Unless otherwise specified, application may be made to any of these sites using any equipment described on this label to control any weeds listed in the "WEEDS CONTROLLED" section of this label. [Alternate text: Unless otherwise specified, application may be made to any site listed in this section using any application equipment described on this label to control any weeds listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH AND TREES RATE SECTION" of this label.]

#### 8.1 Spot Treatment, Trim-and-Edge, Bare Ground Preparation

This product may be used for spot treatment of unwanted vegetation, for trim-and-edge application around objects, and for eliminating vegetation from a site prior to beginning construction projects or the laying of asphalt or other road material, on any site listed on this label. This product may be used prior to planting an area to ornamentals, flowers, or turfgrass (sod or seed), and to eliminate unwanted weeds growing in established shrub and ornamental beds. Repeated applications of this product may be used to maintain bare ground as weeds continue to emerge.

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TANK MIXTURES: This product may be tank-mixed with the following products for the uses described in this section, provided that the specific product is labeled for application at the intended use site. Refer to the individual product labels for approved non-crop sites and application rates.

Arsenal	Karmex DF	Princep DF
atrazine	Krovar I DF	Princep 4L
Barricade 65WG	Landmark MP	Ronstar 50WP
Certainty	Landmark II MP	Sahara
Crossbow L	Landmark XP	simazine
dicamba	Milestone	Surflan WDG
diuron	Oust	Surflan AS
Endurance	Oust XP	Telar
Escort	Outrider	Transline
Escort XP	pendimethalin	Velpar DF
Gallery 75DF	Pendulum WDG	Velpar L
Garlon 3A	Pendulum 3.3 EC	Vanquish
Garlon 4	Plateau	2,4-D
Goal 2XL	Poast	

Tank mixtures of this product plus dicamba may not be applied by air in California.

When applied in a tank mixture for maintaining bare ground, this product will control emerged annual weeds and control or partially control emerged perennial weeds, woody brush and trees.

For control or partial control of the following perennial weeds, apply 22 to 44 fluid ounces of this product plus 2 to 4 ounces of Oust or Oust XP herbicide per acre.

Bahiagrass	Dock, curly	Poorjoe
Bermudagrass	Dogfennel	Quackgrass
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

**8.2 Cut Stump Application**

This product may be used to control the re-growth and re-sprouting of stumps of many species of woody brush and trees on any site listed on this label. Cut the trees or re-sprouts close to the soil surface and immediately apply a 50- to 100-percent solution of this product to the freshly cut surface using application equipment capable of covering the entire cambium. Delays in application could result in reduced performance. For best results, cut the woody brush and trees during periods of active growth and full leaf expansion and apply this treatment. Some of the species controlled by this product and method of application are:

Alder	Oak	Reed, giant	Tan oak
Eucalyptus	Pepper, Brazilian	Saltcedar	Willow
Madrone	Pine, Austrian	Sweetgum	

DO NOT MAKE A CUT STUMP APPLICATION WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MIGHT BE GRAFTED TO THE ROOTS OF THE CUT STUMP. Some sprouts, stems, or trees can share a common root system. Adjacent trees having a similar age, height and spacing could be an indicator of a shared root system. Whether grafted or shared, injury is likely to occur to non-treated stems or trees when one or more trees sharing a common root system are treated.

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**8.3 Forestry Site Preparation**

This product may be used for the control or partial control of woody brush, trees and herbaceous weeds listed on this label in forests. This product may also be used for preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product may be used for site preparation prior to planting any tree species, including Christmas trees, eucalyptus and hybrid tree cultivars, and for establishing silvicultural nursery sites.

Use the higher application rates of this product within the specified range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds listed on this label. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the specified range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower application rates of this product within a specified range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

**TANK MIXTURES:** Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank-mixing, read and carefully observe the label claims, precautionary 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 application rate of this product listed on this label may be used in a tank-mix with the following products for forestry site preparation:

Arsenal Applicators Concentrate	Garlon 3A	Oust
Chopper	Garlon 4A	Oust XP
Escort or Escort XP	Landmark XP	Westar

For control of herbaceous weeds, use the lower application rates specified. For control of dense stands or tough-to-control woody brush and trees, use the higher application rates.

Do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release unless otherwise specified on this label or in separate supplemental labeling or Fact Sheets published for this product.

**8.4 Chemical Mowing**

This product may be used to suppress growth of perennial and annual grasses listed in this section to serve as a substitute for mowing.

**Perennial Grasses**

Apply 4 fluid ounces of this product to suppress growth of Kentucky bluegrass, or 5 fluid ounces to suppress growth of tall fescue, fine fescue, orchardgrass, quackgrass and reed canarygrass, in 10 to 40 gallons of spray solution per acre. Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

**Annual Grasses**

Apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre to suppress growth of annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas

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when actively growing and before seedheads are in the boot stage of development. This treatment could cause injury to the desired grasses.

#### 8.5 Turfgrass

##### Dormant Turfgrass

Apply 5 to 44 fluid ounces of this product in 10 to 40 gallons of water per acre 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 green-up. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and some temporary injury or discoloration can be tolerated.

Treatments in excess of 11 fluid ounces per acre could result in injury or delayed green-up in highly maintained areas, such as golf courses and lawns. DO NOT apply this product in a tank mixture with Oust herbicide in highly maintained turfgrass areas.

##### 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 11 fluid ounces of this product per acre on highly maintained turfgrass. DO NOT apply this product in a tank mixture with Oust or Oust XP herbicide in highly maintained turfgrass areas. Use only in areas where some temporary injury or discoloration can be tolerated.

##### Turfgrass Renovation, Seed and 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 re-growth of underground plant parts occurs. Where repeat treatments are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall application provides 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. Desirable turfgrasses may be planted after application.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held application 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. Delay tillage and renovation techniques, including vertical mowing, coring or slicing for 7 days after application to allow translocation into underground plant parts. If application rates total 2 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2 quarts per acre, remove livestock before application and wait 8 weeks after application before grazing or harvesting.

#### 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 rangeland and wildlife refuges. Application may be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control. Spot treatment may be made to selectively remove unwanted plants for habitat management and enhancement.

##### Wildlife Food Plots

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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 of this herbicide into underground plant parts.

**8.7 Hollow Stem Injection**

This product may be applied using a hand-held injection device capable of delivering the proper amount of this product into targeted hollow-stem plants growing in any non-crop site specified on this label.

Follow these use instructions for control of the following hollow-stem plants:

**Castorbean, *Ricinus communis***

Inject 4 milliliters of this product per plant into the lower portion of the main stem.

**Hemlock, Poison, *Conium maculatum***

Inject one leaf cane per plant 10 to 12 inches above the root crown with 5 milliliters of a 5-percent (by volume) solution of this product.

**Hogweed, Giant, *Heracleum mantegazzianum***

Inject one leaf cane per plant 12 inches above the root crown with 5 milliliters of a 5-percent (by volume) solution of this product.

**Horsetail, Field, *Equisetum arvense***

Inject one segment above the root crown with 0.5 milliliter of this product per stem. Use a low-volume syringe capable of accurately delivering this amount of product.

**Knotweed, Bohemian, *Polygonum bohemicum***

Inject 5 milliliters of this product per stem between the second and third internode.

**Knotweed, Giant, *Polygonum sachalinense***

Inject 5 milliliters of this product per stem between the second and third internode.

**Knotweed, Japanese, *Polygonum cuspidatum***

Inject 5 milliliters of this product per stem between the second and third internode.

**Reed, Giant, *Arundo donax***

Inject 6 milliliters of this product per stem between the second and third internode.

**Thistle, Canada, *Cirsium arvense***

Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Push a cavity needle into the stem center and then slowly remove it as 0.5 milliliter of this product is injected into the stem.

**Note:** The combined total for all treatments must not exceed 7 quarts of this product per acre. At 5 milliliters per stem, 7 quarts should treat approximately 1300 stems per acre.

**8.8 Injection and Frill (Woody Brush and Trees)**

This product may be used to control woody brush and trees by injection or frill application. Apply this product using equipment capable of penetrating into the living tissue. Apply the equivalent of 1 milliliter of this product for every 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 (undiluted). For best results, apply during periods of active growth and after full leaf expansion. This product will control or partially control many species, some of which are listed below.

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Control

Oak  
Poplar  
Sweetgum  
Sycamore

Partial Control

Black gum  
Dogwood  
Hickory  
Maple, red

**8.9 Non-Food Tree, Shrub, and Vine Production Sites**

This product may be used for weed control prior to the planting of and around established ornamentals or any woody tree, shrub or vine species growing in plant nurseries, on Christmas tree farms, or on other non-food tree production sites, including arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew.

UNLESS OTHERWISE DIRECTED, DO NOT USE THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Take care to avoid contact of spray, drift or mist of spray solutions of this product with foliage or green bark of desirable ornamental species.

This product may also 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 until after the application has dried.

TYPES OF APPLICATION: Site Preparation, Post-directed, Trim-and-edge, Wiper Applicator

**Site Preparation**

This product may be used prior to planting any tree, shrub or vine, including Christmas tree species, in a nursery or production setting.

**Post-Directed, Trim-and-Edge**

This product may be used as a post-directed spray around established woody ornamental species, or to trim and edge around trees, buildings, sidewalks, roads, potted plants and other objects in a production setting.

Desirable plants must be protected from the spray solution by using shields or coverings made of an impermeable material.

**Wiper Applicator**

This product may be applied using a wiper applicator, wick or other suitable applicator to control or partially control undesirable vegetation around established trees, shrubs or vines. See the "SELECTIVE EQUIPMENT" section of this label for further information about the proper use of wiper applicators.

**8.10 Parks, Recreational and Residential Areas**

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

All applications of this product described in the "Spot Treatment, Trim-and-Edge, Bare Ground Preparation" section of this label may also be used in parks, recreational and residential areas.

**8.11 Railroads**

All applications of this product described in the "Spot Treatment, Trim-and-Edge, Bare Ground Preparation" section of this label may also be used on railroad sites.



### III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

#### Bare ground, Ballast and Shoulders, Crossings, Spot Treatment

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be made as weeds continue to emerge in order to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and to reduce the need for mowing along rights-of-way. For railroad crossing applications, this product may be applied in up to 80 gallons of spray solution per acre.

**TANK MIXTURES:** This product may be tank mixed with the following products for ballast, shoulder, spot, bare ground and crossing treatment, as well as for enhanced control of woody brush and trees, provided that the specific product used is labeled for application on these sites. Refer to the individual product labels for approved sites and application rates.

Arsenal	Hyvar X	Spike 80DF
atrazine	Hyvar X-L	Telar DF
dicamba	Krovar I DF	Transline
diuron	Oust	Vanquish
Escort	Oust XP	Velpar DF
Escort XP	Outrider	Velpar L
Garlon 3A	Sahara DG	2,4-D
Garlon 4	simazine	

#### Brush Control

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 2.5 to 7 quarts of this product in up to 80 gallons of spray solution per acre as a broadcast spray using boom-type or boomless nozzles. Apply a 0.7- to 1.5-percent solution of this product when using high-volume spray-to-wet application equipment or a 4- to 7-percent solution of this product when using low-volume directed sprays for spot treatment.

**TANK MIXTURES:** This product may be tank-mixed with the following products for enhanced control of woody brush and trees, provided that the specific product used is labeled for use on these sites. Refer to the individual product labels for approved sites and application rates.

Arsenal	Hyvar X	Spike 80DF
atrazine	Hyvar X-L	Telar DF
dicamba	Krovar I DF	Transline
diuron	Oust	Vanquish
Escort	Oust XP	Velpar DF
Escort XP	Outrider	Velpar L
Garlon 3A	Sahara DG	2,4-D
Garlon 4	simazine	

#### 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 11 to 32 fluid ounces of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds less than 6 inches in height (or runner length), increasing the 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

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

Fescue, tall

Vaseygrass

This product may be tank-mixed at an application rate of 11 to 32 fluid ounces per acre with 1 to 2 ounces of Oust herbicide or Oust XP herbicide. Use the lower rates of each product within the specified ranges to control annual weeds listed on this and the Oust or Oust XP herbicide label that are less than 6 inches in height (or runner length) and increase the 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 could result from this treatment, but will re-grow under moist conditions. Make only one application per season, as severe grass injury could occur.

**8.12 Roadsides**

All of the applications of this product described in the "Spot Treatment, Trim-and-Edge, Bare Ground Preparation" section of this label may also be made to roadside sites.

**Shoulder Treatment**

This product may be applied for weed control on roadside shoulders using boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held applicators, and other similar equipment described on this label.

**Guardrails and Other Obstacles to Mowing**

This product may be used to control weeds growing under and around guardrails, 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 treatment and maintaining bare ground, provided that the specific product used is labeled for use on these sites. Refer to the individual product labels for approved sites and application rates.

- |               |                 |              |
|---------------|-----------------|--------------|
| atrazine      | Krovar I DF     | Princep DF   |
| Clarity       | Landmark II MP  | Princep 4L   |
| Crossbow L    | Landmark MP     | Ronstar 50WP |
| dicamba       | Landmark XP     | Sahara       |
| diuron        | Oust            | simazine     |
| Endurance     | Outrider®       | Surflan      |
| Escort        | Pendulum 3.3 EC | Telar        |
| Escort XP     | Pendulum WDG    | Vanquish     |
| Gallery 75 DF | Plateau         | 2,4-D        |

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155

### III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

#### Release of Bermudagrass and Bahiagrass

##### Dormant Application

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass. Treat only when turf is dormant and prior to spring green-up. This product may also be tank-mixed with Outrider, Oust or Oust XP herbicides to add residual weed control. Tank mixtures of this product with Oust or Oust XP herbicides could delay green-up.

For best results on winter annuals, apply 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 5 to 44 fluid ounces of this product in a tank-mix with 0.75 to 1.33 ounces of Outrider® herbicide per acre. Read and follow all label directions for Outrider herbicide.

Apply 6 to 44 fluid ounces of this product alone or in a tank mixture with 0.25 to 1 ounce of Oust or Oust XP herbicide 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 or Oust XP herbicide per acre on bermudagrass and no more than 0.5 ounce per acre on bahiagrass and avoid treatment when these grasses are in a semi-dormant condition.

##### Actively Growing Bermudagrass

Apply 11 to 32 fluid ounces of this product in 10 to 40 gallons of spray solution per acre to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Use the lower application rate within the given range when treating annual weeds less than 6 inches in height (or runner length) and increase the rate towards the upper end of the range as weeds increase in size or as they approach flower or seedhead formation. These application rates will also provide partial control of the following perennial species:

Bahiagrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Johnsongrass	Vaseygrass

This product may be applied at 5 to 22 fluid ounces per acre in a tank-mix with 0.75 to 1.33 ounces of Outrider herbicide for control or partial control of Johnsongrass and other weeds listed on the Outrider herbicide label. Use the higher application rate of both products within the given ranges for control of perennial weeds and annual weeds greater than 6 inches in height.

This product may be applied at 11 to 22 fluid ounces per acre in a tank-mix with 1 to 2 ounces of Oust or Oust XP herbicide. Use the lower application rates of each product within the given ranges to control annual weeds listed on the labels that are less than 6 inches in height (or runner length) and increase the rates towards the upper end of the ranges 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	Dock, curly	Poorjoe
Bluestem, silver	Dogfennel	Trumpetcreeper
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury could result from the treatment, but recover under moist conditions. Make only one application of this tank-mix per season, as severe bermudagrass injury could occur with repeated application.

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**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 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches prior to seedhead emergence.

For growth suppression of bahiagrass for 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 growth suppression applications per year.

Application of 4 fluid ounces of this product in a tank-mix with 0.75 to 2.0 ounces of Outrider herbicide per acre will control or partially control Johnsongrass and other weeds listed on the Outrider herbicide label. Use the higher application rate within the given range for Outrider herbicide for control of perennial and annual weeds greater than 6 inches in height. Use only on well-established bahiagrass.

A tank mixture of 4 fluid ounces of this product plus 0.25 ounce of either Oust or Oust XP herbicide per acre may be applied 1 to 2 weeks following an initial spring mowing. Make this application only once per year.

**8.13 Rangelands**

This product will control or suppress many annual weeds growing in perennial cool- and warm-season grass rangelands and pastures, and on grassy industrial sites. Preventing weed seed production is critical to the successful control of invasive annual grassy weeds on these perennial grass sites. Yearly application of this product will help eliminate viable weed seeds. Delay grazing in the treated areas to allow desirable perennials to grow, flower and re-seed the area.

**Bromus:** A broadcast application of 5 to 11 fluid ounces of this product per acre will control or suppress downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*), cheatgrass (*Bromus secalinus*), cereal rye and jointed goatgrass found in rangelands, pastures and grassy industrial sites. For best results, allow herbicide treatment to coincide with early seedhead emergence of the most mature plants in order to maximize the emergence of other weedy grasses. Repeat this treatment annually until seed banks are depleted and the desirable perennial grasses become re-established on the site.

**Medusahead:** To control or suppress medusahead, apply 11 fluid ounces of this product per acre in the spring or fall when plants are at the 3-leaf stage and actively growing. Delaying application beyond this stage will result in reduced or unacceptable control. Apply this rate in 10 to 20 gallons of water per acre using ground application equipment or in 2 to 10 gallons of water per acre using aerial application equipment, either fixed-wing or helicopter. Repeat applications in subsequent years will be necessary to eliminate the seed bank and allow desirable perennial grasses to become established.

**Spot Treatment, Wiper Applicator**

This product may be applied in rangeland, pastures or industrial sites as a spot treatment or over the top of desirable grasses using a wiper applicator to control tall weeds. Application may be repeated in the same area at 30-day intervals.

For spot treatment or use with a wiper applicator at rates of 2 quarts of this product per acre or less, the entire site or any portion of it may be treated; at application rates above 2 quarts per acre, no more than 10 percent of the total site 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 for feed.

**8.14 Utility Sites**

This product may be used along electrical power, pipeline and telephone rights-of-way, and on all sites associated with these utility rights-of-way, including substations, roadsides, railroads, and along similar

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rights-of-way that run in conjunction with utilities, for spot treatment of unwanted vegetation, for trim-and-edge application around objects, for weed control prior to planting a utility site to ornamentals, flowers, or turfgrass (sod or seed), to eliminate unwanted weeds growing in established shrub or ornamental beds, and for eliminating vegetation prior to or beginning construction projects. Repeated applications of this product may be made to maintain bare ground as weeds continue to emerge.

This product may also be used to prepare or establish wildlife openings on these sites, maintain access roads and for side-trimming along utility rights-of-way.

**TANK MIXTURES:** This product may be tank-mixed with the following products for use on utility sties, provided that the specific product used is labeled for use on these sites. Refer to the individual product labels for approved sites and application rates. For control of herbaceous weeds, use the lower application rates within the given range for these tank-mix products and the higher rates for control of dense stands or tough-to-control woody brush and trees.

Arsenal	Krenite	Surflan AS
atrazine	Krovar I DF	Surflan WDG
Barricade 65WG	Oust	Telar DF
dicamba	Oust XP	Transline
diuron	Outrider	Vanquish
Endurance	pendimethalin	Velpar DF
Escort	Plateau	Velpar L
Escort XP	Ronstar 50WP	2,4-D
Garlon 3A	Sahara	
Garlon 4	simazine	

Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product to the spray mixture. Maintain continuous agitation when adding this product in order to avoid product incompatibility problems.

For best results with side-trimming treatments, use this product in a tank mixture with Garlon 4.

#### 8.15 Grass Seed and Sod Production

This product may be used in grass seed and sod production for preplant, at-planting, preemergence, removal of established stands, renovation, site preparation, shielded sprayer, wiper applicator, spot treatment, and creating rows in annual ryegrass applications.

#### Preplant, At-Planting, Preemergence, Removal of Established Stands, Renovation, Site Preparation

This product controls most existing vegetation for purposes of renovating turf or forage grass seed areas and for establishing turfgrass grown for sod. It may also be used to destroy remaining undesired grass vegetation when production fields are converted to alternate species or crops. Make application before, during, or after planting, or for renovation purposes. Application must be made prior to crop emergence in order to avoid crop injury. For maximum control of existing vegetation, delay planting to determine if any re-growth from underground plant parts occurs. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing in order to allow sufficient turf growth for good interception of the herbicide spray. Where repeat treatments are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall application provides best control. Broadcast application equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates up to 3.3 quarts per acre may be used to totally remove established stands of tough to kill grass species.

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Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow proper translocation into underground plant parts. If application rates total 2 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

#### **Shielded Sprayer**

Apply 22 to 64 fluid ounces of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows will aid this shielded sprayer application. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields of the sprayer.

Any contact of this product with desirable vegetation could result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

#### **Wiper Applicator**

This product may be applied over the top of desirable grasses using a wiper applicator for the control of tall weeds.

Any contact of this product with desirable vegetation could result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

#### **Spot Treatment**

Apply a 1.0-percent solution of this product using a hand-held sprayer to control weeds within established vegetation prior to heading of grasses grown for seed. Hand-held equipment may also be used to control sod remnants or other unwanted vegetation after sod is harvested.

The crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

#### **Creating Rows in Annual Ryegrass**

Apply 11 to 22 fluid ounces of this product per acre to create rows in annual ryegrass. Best results are obtained when application is made before ryegrass reaches 6 inches in height. Use the higher application rate within this range when ryegrass is greater than 6 inches tall.

Set nozzle heights to establish desired row spacing. Low-pressure nozzles or drop nozzles designed to target the application over a narrow band provide best results.

Take care not to spray or allow spray to drift outside target area in order to avoid unwanted grass destruction.

**Grower assumes all responsibility for crop losses resulting from misapplication of this product.**

#### **8.16 Pastures**

This product may be applied as a spot treatment or using a wiper applicator, or as a broadcast preplant, preemergence, pasture renovation, or postemergence application to any pasture grass (other than food crops in the *Gramineae* family), including bahiagrass, bermudagrass, bluegrass, brome, fescue, guineagrass, kikuyugrass, orchardgrass, pangola grass, ryegrass, timothy, and wheatgrass.

#### **Preplant, Preemergence, Pasture Renovation**

This product may be applied for weed control prior to planting or emergence of forage grasses or for control of perennial pasture species listed on this label prior to replanting.

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If the total application rate of this product is 2 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Spot Treatment, Wiper Applicator**

This product may be applied in pastures as a spot treatment or over the top of desirable grasses using a wiper applicator to control tall weeds. Applications may be repeated in the same area at 30-day intervals.

For spot treatment or use with a wiper applicator at an application rate of 2 quarts of this product per acre or less, the entire field or any portion of it may be treated. If the application rate is greater than 2 quarts 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 for feed.

**Selective Weed Control in Dormant Pastures (Broadcast Application)**

This product may be applied to dormant pastures to suppress competitive growth and seed production of annual weeds and undesirable vegetation. For selective weed control using broadcast application equipment, apply 8 to 11 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth, or in late fall after desirable perennial grasses have reached dormancy.

Some stunting of perennial grasses will occur if this application is made when plants are not dormant. Use of higher application rates will cause stand reductions. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2 quarts of this product per acre per year onto pasture grasses except for renovation uses as described on this label.

**9.0 WEEDS CONTROLLED**

Always use the higher application rate of this product within the specified range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area.

A reduction in the performance of this product could occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow re-growth to occur before treating.

Refer to the following label sections for application rates of this product for the control of annual and perennial weeds and woody brush and trees. For tough-to-control perennial weeds, woody brush and trees, or where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 4 to 7 quarts per acre for enhanced results.

**9.1 Annual Weeds**

Apply 22 fluid ounces of this product per acre to control annual weeds less than 6 inches in height or runner length and 1 to 2.7 quarts per acre if weeds are over 6 inches in height or runner length or whenever weeds are growing under stressed conditions. Treat all tough-to-control species at the higher rate and early, when they are relatively small. This product may be tank-mixed with other herbicides, provided that the tank-mix product is labeled for use at the target site. Refer to the individual labels of all products used in a tank-mix for approved sites and application rates.

For spray-to-wet application of this product using a hand-held applicator, apply a 0.4-percent solution of this product to annual weeds less than 6 inches in height or runner length, or a 0.7- to 1.5-percent solution if they are 6 inches or taller and for all weeds growing under stressed conditions, even if they are less than 6 inches tall. Use the higher concentration within this range for tough-to-control weeds or for weeds over 24 inches tall. Apply prior to seedhead formation in grass or prior to bud formation in broadleaf weeds.

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For low-volume directed spray application, apply a 4- to 7-percent solution of this product. Ensure that spray coverage is uniform with at least 50 percent of the foliage or the top one-half of the plant contacted. To ensure adequate spray coverage, spray both sides of large or tall weeds, or when foliage is thick and dense, or where there are multiple sprouts.

**Weed Species**

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Anoda, spurred  
Barley  
Barnyardgrass  
Bassia, fivehook  
Bittercress  
Black nightshade  
Bluegrass, annual  
Bluegrass, bulbous  
Brome, downy  
Brome, Japanese  
Browntop panicum  
Buttercup  
Carolina foxtail  
Carolina geranium  
Castorbean  
Cheatgrass  
Cheeseweed (*Malva parviflora*)  
Chervil  
Chickweed  
Cocklebur  
Copperleaf, hophornbeam  
Corn  
Corn speedwell  
Crabgrass  
Dwarf dandelion  
Eastern manna grass  
Eclipta  
Fall panicum  
Falsedandelion  
Falseflax, smallseed  
Fiddleneck  
Field pennycress  
Filaree  
Fleabane, annual  
Fleabane, hairy (*Conyza bonariensis*)  
Fleabane, rough  
Florida pusley  
Foxtail  
Goatgrass, jointed  
Goosegrass  
Grain sorghum (milo)  
Groundsel, common  
Hemp sesbania  
Henbit  
Horseweed/Marestail (*Conyza canadensis*)



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Itchgrass  
Johnsongrass, seedling  
Junglerice  
Knotweed  
Kochia  
Lamb's-quarters  
Little barley  
London rocket  
Mayweed  
Medusahead  
Morningglory (*Ipomoea spp*)  
Mustard, blue  
Mustard, tansy  
Mustard, tumble  
Mustard, wild  
Oats  
Pigweed  
Plains/Tickseed coreopsis  
Prickly lettuce  
Puncturevine  
Purslane, common  
Ragweed, common  
Ragweed, giant  
Red rice  
Russian thistle  
Rye  
Ryegrass  
Sandbur, field  
Shattercane  
Shepherd's-purse  
Sicklepod  
Signalgrass, broadleaf  
Smartweed, ladythumb  
Smartweed, Pennsylvania  
Sowthistle, annual  
Spanishneedles  
Speedwell, purslane  
Sprangletop  
Spurge, annual  
Spurge, prostrate  
Spurge, spotted  
Spurry, umbrella  
Starthistle, yellow  
Stinkgrass  
Sunflower  
Teaweed/Prickly sida  
Texas panicum  
Velvetleaf  
Virginia copperleaf  
Virginia pepperweed  
Wheat

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- Wild oats
- Witchgrass
- Woolly cupgrass
- Yellow rocket

**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, treatment is required prior to these growth stages. Under these conditions, use the higher application rate within the recommended range.

Ensure thorough coverage when using spray-to-wet technique with hand-held sprayers. 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.

For low-volume directed spray application, use a 4- to 7-percent solution of this product. Ensure that spray coverage is uniform and complete with at least 50 percent of the foliage or the top one half of the plant contacted. To ensure complete spray coverage, spray both sides of large or tall weeds, or when foliage is thick and dense, or where there are multiple sprouts.

Allow 7 or more days after application before tillage.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	1 - 1.5	1.5
Alligatorweed*	3	1
Anise (fennel)	1.3 - 2.7	1 - 1.5
Artichoke, Jerusalem	2 - 3.3	1.5
Bahiagrass	2 - 3.3	1.5
Beachgrass, European ( <i>Ammophila arenaria</i> )	-	3.5
Bentgrass*	1	1.5
Bermudagrass	3.3	1.5
Bermudagrass, water (knotgrass)	1	1.5
Bindweed, field	2.7 - 3.3	1.5
Bittersweet, oriental	2	1.5
Bluegrass, Kentucky	1.5	1.5
Blueweed, Texas	2.7 - 3.3	1.5
Brackenfern	2 - 3	1
Bromegrass, smooth	1.5	1.5
Bursage, woolly-leaf	-	1.5
Canarygrass, reed	1.5 - 2	1.5
Cattail	2 - 3.3	1.5
Clover; red, white	2 - 3.3	1.5
Cogongrass	2 - 3.3	1.5
Dallisgrass	2 - 3.3	1.5
Dandelion	2 - 3.3	1.5
Dock, curly	2 - 3.3	1.5
Dogbane, hemp	2.5	1.5

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Fescue (except tall)	3	1.5
Fescue, tall	2	1.5
Guineagrass	2	1
Hemlock, poison	1.3 - 2.7	1 - 1.5
Horsenettle	2 - 3.3	1.5
Horseradish	3	1.5
Iceplant	1.3	1.5 - 2
Ivy, German	1.3 - 2.7	1 - 1.5
Johnsongrass	1.3 - 2	1
Kikuyugrass	1.5 - 2	1.5
Knapweed	3	1.5
Knotweed, Japanese	2.75	2
Lantana	-	1
Lespedeza	2 - 3.3	1.5
Milkweed, common	2	1.5
Muhly, wirestem	1.5	1.5
Mullein, common	2 - 3.3	1.5
Napiergrass	2 - 3.3	1.5
Nightshade, silverleaf	1.5	1.5
Nutsedge, purple, yellow	2	1 - 1.5
Orchardgrass	1.5	1.5
Pampasgrass	2 - 3.3	1 - 1.5
Paragrass	2 - 3.3	1.5
Pepperweed, perennial	2.7	1.5
Phragmites*	2 - 3.3	1 - 1.5
Pokeweed, common	1	1.5
Quackgrass	1.3 - 2	1.5
Redvine*	1.5	1.5
Reed, giant	2.7 - 3.3	1.5
Ryegrass, perennial	1.5 - 2	1
Smartweed, swamp	2 - 3.3	1.5
Sowthistle, perennial	1.5 - 2	1.5
Spurge, leafy*	-	1.5
Starthistle, yellow	1.5	1.5
Sweet potato, wild*	-	1.5
Thistle, artichoke	1.3 - 2	1 - 1.5
Thistle, Canada	1.5 - 2	1.5
Timothy	1.5 - 2	1.5
Torpedograss*	2.7 - 3.3	1.5
Trumpetcreeper*	1.5 - 2	1.5
Vaseygrass	2 - 3.3	1.5
Velvetgrass	2 - 3.3	1.5
Wheatgrass, western	1.5 - 2	1.5

\* Partial control

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

**9.3 Woody Brush and Trees**

Apply this product after full leaf expansion, unless otherwise directed on this label or in separate supplemental labeling or Fact Sheets published for this product. Use the higher application rate within the given range for larger plants and/or dense areas of weed growth, and when treating vines or 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 application is made in the spring to early summer when brush species are at high moisture content and flowering.

For best results when using hand-held equipment, use a 1.5-percent solution on harder-to-control woody brush and trees.

For low-volume directed-spray application, apply a 4- to 7-percent solution of this product. Ensure that spray coverage is uniform and complete with at least 50 percent of the foliage or the top one-half of the plant contacted. To ensure complete coverage, spray both sides of large or tall woody brush and trees, or when foliage is thick and dense, or where there are multiple sprouts.

Symptoms might not appear prior to frost or senescence following fall treatment.

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

<b>Weed Species</b>	<b>Broadcast Rate (QT/A)</b>	<b>Hand-Held Spray-to-Wet % Solution</b>
Alder	2 - 3	1
Ash*	1.5 - 3.3	1 - 1.5
Aspen, quaking	1.5 - 2	1
Bearclover (Bearnat)*	1.5 - 3.3	1 - 1.5
Beech*	1.5 - 3.3	1 - 1.5
Birch	1.5 - 2	1
Blackberry	2 - 3	1
Blackgum	1.5 - 3.3	1 - 1.5
Bracken	1.5 - 3.3	1 - 1.5
Broom; French, Scotch	1.5 - 3.3	1 - 1.5
Buckwheat, California*	1.5 - 2.5	1 - 1.5
Cascara*	1.5 - 3.3	1 - 1.5
Catsclaw*	-	1
Ceanothus*	1.5 - 3.3	1 - 1.5
Chamise*	1.5 - 3.3	1
Cherry; bitter, black, pin	1.5 - 2	1
Coyote brush	2 - 2.7	1 - 1.5
Creeper, Virginia	1.5 - 3.3	1 - 1.5
Deerweed	1.5 - 3.3	1
Dogwood*	1.5 - 3.3	1 - 1.5
Elderberry	1.5 - 2	1
Elm*	1.5 - 3.3	1 - 1.5
Eucalyptus	-	1.5

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

Flower, monkey	1.3 – 2.7	1 – 1.5
Gorse*	1.5 – 3.3	1 – 1.5
Hasardia*	1.5 – 2.5	1 – 1.5
Hawthorn	1.5 – 2	1
Hazel	1.5 – 2	1
Hickory*	1.5 – 3.3	1 – 1.5
Honeysuckle	2 – 3	1
Hornbeam, American*	1.5 – 3.3	1 – 1.5
Ivy, poison	2.5 – 3.3	1.5
Kudzu	2.5 – 3	1.5
Locust, black*	1.5 – 2.5	1 – 1.5
Madrone resprouts*	–	1.5
Manzanita*	1.5 – 3.3	1 – 1.5
Maple, red	1.5 – 3	1
Maple, sugar	–	1
Maple, vine*	1.5 – 3.3	1 – 1.5
Oak; black, white*	1.5 – 3	1 – 1.5
Oak; northern, pin	1.3 – 2.7	1
Oak, poison	2.5 – 3.3	1.5
Oak, post	2 – 3	1
Oak, Scrub*	1.5 – 2.7	1
Oak; southern red	1.5 – 2	1
Olive, Russian*	1.5 – 3.3	1 – 1.5
Peppertree, Brazilian (Florida holly)*	1.3 – 3.3	1 – 1.5
Persimmon*	1.5 – 3.3	1 – 1.5
Pine	1.5 – 3.3	1 – 1.5
Poplar, yellow*	1.5 – 3.3	1 – 1.5
Redbud, eastern	1.5 – 3.3	1 – 1.5
Rose, multiflora	1.5	1
Sage, black	1.3 – 2.7	1
Sage, white*	1.5 – 2.7	1 – 1.5
Sage brush, California	1.3 – 2.7	1
Salmonberry	1.5 – 2	1
Saltcedar*	1.5 – 3.3	1 – 1.5
Sassafras*	1.5 – 3.3	1 – 1.5
Sourwood*	1.5 – 3.3	1 – 1.5
Sumac; laurel, poison, smooth, sugarbush, winged*	1.5 – 3	1 – 1.5
Sweetgum	1.5 – 2	1
Swordfern*	1.5 – 3.3	1 – 1.5
Tallowtree, Chinese	–	1
Tan oak resprouts*	–	1.5
Thimbleberry	1.5	1
Tobacco, tree*	1.5 – 2.5	1 – 1.5

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

Toyon*	-	1.5
Trumpetcreeper	1.5 - 2	1
Waxmyrtle, southern*	1.5 - 3.3	1 - 1.5
Willow	2 - 3	1
Yerbasenta*	-	1.5

\* Partial control

**10.0 LIMIT OF WARRANTY AND LIABILITY**

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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 extent consistent with applicable 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, failure of this product to control weed biotypes which develop resistance to glyphosate, 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.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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 EXTENT CONSISTENT WITH APPLICABLE 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], Outrider, Monsanto and Vine symbol are trademarks of Monsanto Technology LLC.

All other trademarks are the property of their respective owners.

III. MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES

This product is protected by U.S. Patent No's. 5,668,085 and 6,365,441. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-539

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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]

Packed for:

MONSANTO COMPANY  
800 N. LINDBERGH BLVD.  
ST. LOUIS, MISSOURI, 63167 USA

### III. SUPPLEMENTAL LABELING

#### Table of Contents

	Name	Acceptance Date*
A	USE IN DORMANT ALFALFA	4-Dec-2006
B	CONTROL OF ANNUAL WEEDS IN COASTAL BERMUDAGRASS PASTURES PRIOR TO SPRING GROWTH OR IMMEDIATELY AFTER FIRST CUTTING	4-Dec-2006
C	FOR DISTRIBUTION AND USE ONLY WITHIN SOUTH DAKOTA: NON-SELECTIVE CONTROL OF LISTED ANNUAL WEEDS IN SMALL GRAIN CROPPING SYSTEMS	4-Dec-2006
D	LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY, INCLUDING FRESNO COUNTY, CALIFORNIA	4-Dec-2006
E	AERIAL APPLICATION IN ARKANSAS ONLY	4-Dec-2006
F	USE IN SEED PRODUCTION OF RICE WITH A ROUNDUP READY® GENE	MODIFIED
G	USE IN SEED PRODUCTION OF WHEAT WITH A ROUNDUP READY® GENE	MODIFIED
H	CONTROL OF BARNYARDGRASS ( <i>ECHINOCHLOA CRUS-GALLI</i> ) IN RICE USING RENOVATION TREATMENTS IN CALIFORNIA ONLY	4-Dec-2006
I	CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT HORSEWEED ( <i>MARESTAIL, CONYZA CANADENSIS</i> ) IN CROP AND NON-CROP AREAS	MODIFIED
J	USE ON RASPBERRY CROPS	MODIFIED
K	USE IN ROUNDUP READY® ALFALFA SEED PRODUCTION	MODIFIED
L	BROADCAST APPLICATION IN CHRISTMAS TREE PLANTATIONS	MODIFIED
M	APPLICATION TO ROUNDUP READY® COTTON IN THE STATE OF ARIZONA ONLY	MODIFIED
N	APPLICATION TO ROUNDUP READY® FLEX COTTON IN THE STATE OF ARIZONA ONLY	MODIFIED
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P	CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT <i>AMARANTHUS</i> spp. IN COTTON, CORN AND SOYBEAN	MODIFIED
Q	CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT RYEGRASS	MODIFIED
R	SELECTIVE WEED CONTROL ON [INSERT BRAND NAME]-TOLERANT PURE GOLD® TALL FESCUE AND AURORA GOLD® FINE FESCUE SELECTIONS	MODIFIED
S	TANK MIXTURES FOR TOUGH-TO-CONTROL WEEDS	MODIFIED
T	TANK MIXTURES FOR IMPROVED CONTROL OF BENTGRASS ( <i>AGROSTIS</i> spp.)	MODIFIED



IV. SUPPLEMENTAL LABELING

	Name	Acceptance Date*
U	CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT COMMON AND GIANT RAGWEED ( <i>AMBROSIA</i> spp.) IN CORN, COTTON AND SOYBEAN	NEW
V	CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT JOHNSONGRASS IN CORN, COTTON AND SOYBEAN	NEW
W	USE IN RESEARCH FIELD TRIALS AND FOR SEED PRODUCTION OF CORN HYBRIDS USING THE ROUNDUP HYBRIDIZATION SYSTEM (RHS)	NEW

\* Acceptance date corresponds to last acceptance date of the Master Label for EPA Reg. No. 524-539

SUPPLEMENTAL LABELING TEMPLATE

SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR [INSERT BRAND NAME] BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED ON 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. 524-539

[INSERT LABEL TITLE]

Keep out of reach of children

CAUTION!

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

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

DIRECTIONS FOR USE

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.

[For uses other than on Roundup Ready crops: AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY CROPS); DESIRABLE PLANTS AND TREES, AS SEVERE INJURY OR DESTRUCTION COULD RESULT.]

[Optional text for uses on Roundup Ready crops only: ROUNDUP READY CROPS CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO GLYPHOSATE, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO CROPS THAT ARE NOT GLYPHOSATE TOLERANT. AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE, AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.]

[For uses other than on Roundup Ready crops: See "PRODUCT INFORMATION" and "MIXING" sections of the label booklet for [INSERT BRAND NAME] for essential product information.]

[Optional text for uses on Roundup Ready crops only: See the "PRODUCT INFORMATION", "MIXING" and "ROUNDUP READY CROPS" sections of the label booklet for [INSERT BRAND NAME] for essential product information.]

IV. SUPPLEMENTAL LABELING

[INSERT SPECIFIC DIRECTIONS FOR USE FROM FOLLOWING SECTIONS HERE]

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.

© [DATE]

MONSANTO COMPANY  
800 N. LINDBERGH BLVD.  
ST. LOUIS, MISSOURI 63167 USA

[INSERT PRINT PLATE NUMBER]

**A. USE IN DORMANT ALFALFA**

[DIRECTIONS FOR USE]

APPLICATION OF THIS PRODUCT TO DORMANT ALFALFA IS LIMITED TO PERSONS WHO HAVE ATTENDED AN APPROVED TRAINING PROGRAM. Improper application of this product to alfalfa can cause crop injury. Any crop injury is the sole responsibility of the applicator.

USE INSTRUCTIONS: This product will control or suppress many weeds, including quackgrass, downy brome and cheatgrass in dormant alfalfa. Apply 6 to 8 fluid ounces of this product per acre in the spring when alfalfa is dormant, after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliolate leaf expansion of the alfalfa. Application made after expansion of the first trifoliolate leaf of the alfalfa will cause growth reduction and reduced crop yield.

PRECAUTIONS, RESTRICTIONS: Do not add ammonium sulfate to spray solutions of this product for application to dormant alfalfa. Do not use this product on dormant alfalfa if a slight yield reduction in the first cutting 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 could occur, but the alfalfa will re-green and resume growth under moist soil conditions as effects of this product wear off.

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

[DIRECTIONS FOR USE]

USE INSTRUCTIONS: This product may be applied at 10 fluid ounces per acre to control the weeds listed below and most other winter annual grasses and broadleaf weeds in established coastal bermudagrass pastures.

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

**Timing of Application**

IV. SUPPLEMENTAL LABELING

Application prior to spring growth - apply this product in either late winter or early spring, but before new coastal bermudagrass growth begins in the spring. Application 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.

Application following the first cutting - apply this product after the first bermudagrass cutting when the bermudagrass has not yet begun to re-grow. Application made after re-growth 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.

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

[DIRECTIONS FOR USE]

USE INSTRUCTIONS: Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of the [INSERT BRAND NAME] label for specific application rates and weeds controlled. For ground application, apply the appropriate rate of this product in 3 to 5 gallons of water per acre. For aerial application, apply in 2 to 3 gallons of water per acre.

PRECAUTIONS, RESTRICTIONS: 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, as 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.

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 application. Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations that dispense spray as fine spray droplets.

For aerial application, do not angle nozzles forward into the air stream or 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 CAN RESULT IN CORROSION AND POSSIBLE FAILURE OF PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) that meets aerospace specification MIL-C-38413 could help prevent corrosion.

**D. LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY, INCLUDING FRESNO COUNTY, CALIFORNIA**

[DIRECTIONS FOR USE]

All treatments listed on the product label may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this supplemental labeling and in the product label booklet. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the product label for additional information on the use of aerial application equipment. Refer to the individual use site section of the product label, or to other supplemental labeling or technical Fact Sheets published separately for this product by Monsanto, for specific use instructions.

**AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT CAN 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 making an aerial application 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) could 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.

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, only 2,4-D amine formulations may be used with aerial application in California. Tank mixtures with 2,4-D amine formulations may be applied by air in California for fallow and reduced tillage systems, and for alfalfa and pasture renovation applications only.

This product, when tank-mixed with dicamba, may not be applied by air in California.

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**ADDITIONAL INFORMATION FOR FRESNO COUNTY, CALIFORNIA**

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The following information applies only from February 15 through March 31 within the following boundaries of Fresno County, California:

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

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 Recommendation**

IV. SUPPLEMENTAL LABELING

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.

**E. AERIAL APPLICATION IN ARKANSAS ONLY**

[DIRECTIONS FOR USE]

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.

Apply the appropriate 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 have a lower drift potential.

Applications are typically to 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-wing 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 can occur when wind speeds are less than 2 miles per hour.

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#### IV. SUPPLEMENTAL LABELING

Use the following guidelines when application is 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.

#### F. USE IN SEED PRODUCTION OF RICE WITH A ROUNDUP READY® GENE

##### [DIRECTIONS FOR USE]

THIS PRODUCT MAY BE USED FOR CONTROL OF NON-GLYPHOSATE-TOLERANT RICE IN PRODUCTION FIELDS OF RICE CONTAINING A GLYPHOSATE-TOLERANCE GENE. APPLICATION OF THIS PRODUCT ON RICE VARIETIES THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE WILL CAUSE SEVERE CROP INJURY OR DEATH.

USE INSTRUCTIONS: This product may be applied up to 44 fluid ounces in 5 to 20 gallons of spray solution per acre as a broadcast application to seed production fields of rice containing a glyphosate-tolerance gene from emergence to harvest to control non-glyphosate-tolerant plants. A second application of up to 44 fluid ounces per acre may be applied, if additional control of non-glyphosate-tolerant plants is needed.

PRECAUTIONS, RESTRICTIONS: DO NOT apply more than 2.5 quarts of this product per acre per season. Treated rice may not be used or processed for food or feed. Do not feed or graze treated rice.

#### G. USE IN SEED PRODUCTION OF WHEAT WITH A ROUNDUP READY® GENE

##### [DIRECTIONS FOR USE]

THIS PRODUCT MAY BE USED FOR CONTROL OF NON-GLYPHOSATE-TOLERANT WHEAT IN PRODUCTION FIELDS OF WHEAT CONTAINING A GLYPHOSATE-TOLERANCE GENE. APPLICATION OF THIS PRODUCT ON WHEAT VARIETIES THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE WILL CAUSE SEVERE INJURY OR DEATH.

USE INSTRUCTIONS: This product may be applied up to 22 fluid ounces in 5 to 20 gallons of spray solution per acre as a broadcast application to seed production fields of wheat containing a glyphosate-tolerance gene from emergence to harvest to control non-glyphosate-tolerant plants. A second application up to 22 fluid ounces per acre may be applied, if additional control of non-glyphosate tolerant plants is needed.

PRECAUTIONS, RESTRICTIONS: DO NOT apply more than 44 fluid ounces of this product per acre per season. Treated wheat may not be used or processed for food or feed. Do not feed or graze treated wheat.

#### H. CONTROL OF BARNYARDGRASS (*ECHINOCHLOA CRUS-GALLI*) IN RICE USING RENOVATION TREATMENT IN CALIFORNIA ONLY

##### [DIRECTIONS FOR USE]

##### Renovation Treatment

IV. SUPPLEMENTAL LABELING

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

**PRECAUTIONS, RESTRICTIONS:** Crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction. The rice straw and stubble from the treated area, including a 25-foot buffer zone on all sides, may not be used for animal bedding, grazing, or any other feed purposes. Aerial application is not permitted for rice renovation using this supplemental labeling.

I. CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT HORSEWEED (MARESTAIL, *CONYZA CANADENSIS*) IN CROP AND NON-CROP AREAS

[DIRECTIONS FOR USE]

**USE INSTRUCTIONS:** Unless otherwise directed, apply the specified rate of this product in 10 to 20 gallons of water per acre using ground application equipment, or in 3 to 15 gallons of water per acre using aerial application equipment. Read and follow label directions for all products in the tank mixture.

**CORN**

**Preplant, At-Planting, Preemergence**

Apply 22 fluid ounces of this product plus 0.5 pound (active ingredient) of 2,4-D or 0.25 to 0.5 pound (active ingredient) of dicamba per acre before horseweed exceeds 6 inches in height. See the 2,4-D or dicamba product label for time intervals that are required between application and planting, and other geographic restrictions with the use of these products.

For residual control, tank-mix 22 fluid ounces of this product with 1 to 2 pounds (active ingredient) of atrazine per acre. Refer to the atrazine product label for specific use instructions.

Ensure that the tank-mix product being used is labeled for application prior to planting or the emergence of corn.

**In-crop (Corn Hybrids with Roundup Ready 2 Technology Only)**

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo.

Apply 22 fluid ounces of this product plus 0.25 to 0.5 pound (active ingredient) of dicamba, or 0.5 to 1.0 pound (active ingredient) of 2,4-D, per acre between corn emergence and the 5-leaf stage of growth (approximately 8 inches tall).

Refer to the dicamba product label for the time intervals that are required between application and planting and other geographic use restrictions.

Ensure that the tank-mix product(s) being used is labeled for application postemergence to corn.

**COTTON**

**Preplant**

For control of horseweed, apply 22 fluid ounces of this product in a tank-mix with 0.25 to 0.5 pound of dicamba per acre 21 to 35 days before planting and before horseweed reaches 6 inches in height. To avoid crop injury, a minimum interval of 21 days and at least 1 inch of cumulative rainfall must be observed between application of dicamba and the planting of cotton.



IV. SUPPLEMENTAL LABELING

2,4-D may be substituted for dicamba in the tank-mixture with this product. Refer to the 2,4-D product label for application rates and time intervals that are required between application and planting and other geographic use restrictions.

Ensure that the tank-mix product being used is labeled for application prior to the planting of cotton.

**Post-directed (Roundup Ready® Cotton and Roundup Ready Flex Cotton Varieties Only)**

Management of early season weed competition and the development of a crop height differential between cotton and horseweed are often achieved by a combination of preplant burndown and postemergence 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 application of 2 pounds (active ingredient) of MSMA tank-mixed with 0.5 to 0.75 pound (active ingredient) diuron per acre may be made when the temperature is 80°F or higher.

**SOYBEAN**

**Preplant**

It is strongly encouraged that horseweed be controlled prior to planting soybean. Apply a tank mixture of 22 fluid ounces of this product and 0.25 to 0.5 pound (active ingredient) of dicamba or 0.5 pound (active ingredient) of 2,4-D per acre before horseweed exceeds 6 inches in height. See the dicamba and 2,4-D product labels for time intervals that are required between application and planting. Ensure that the tank-mix product being used is labeled for application prior to the planting of soybean.

**In-crop (Roundup Ready Soybean and Roundup Ready 2 Yield Soybean Varieties Only)**

Use this treatment as a salvage treatment only for a horseweed infestation that was not controlled prior to the planting of soybean. Best results will be obtained if the horseweed at the time of treatment does not exceed 6 inches in height. Apply a tank mixture of 22 fluid ounces of this product and 0.3 ounces of FirstRate herbicide per acre between full emergence of the first trifoliolate leaf and 50 percent flowering stage of soybean.

**TREE AND VINE CROPS**

**Orchards (Pome Fruit, Stone Fruit and Tree Nuts)**

Apply 44 fluid ounces of this product plus up to 1 pound of 2,4-D in a carrier volume of 15 gallons per acre at the rosette stage and before marestail exceeds 6 inches in height. Ensure that the 2,4-D product being used is labeled for use with the crop being grown. Read and follow label directions for all products in the tank mixture. Further local restrictions could apply.

**Vine Crops (Grapes Only)**

Apply 44 fluid ounces of this product plus up to 1 pound of 2,4-D in a carrier volume of 15 gallons per acre at the rosette stage and before marestail exceeds 6 inches in height. A residual herbicide, such as diuron, could provide additional preemergence control. Ensure that the 2,4-D and any other product being used in the tank-mix are labeled for use with the crop being grown. Further local restrictions may apply.

**NON-CROP AREAS**

Apply 22 fluid ounces of this product per acre in a tank-mix(with one or more of the products listed below at the rosette stage and before horseweed exceeds 6 inches in height. Ensure that each product is labeled for use on the target site. Refer to the product labels for approved sites and application rates. Read and carefully observe the precautionary 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.

IV. SUPPLEMENTAL LABELING

- 2,4-D
- Crossbow L
- dicamba
- Gallery 75 DF
- Krovar I DF
- Landmark II MP
- Landmark MP
- Milestone
- Overdrive
- Telar DF
- Transline
- Vanquish
- Velpar DF

PRECAUTIONS, RESTRICTIONS: Observe the precautionary statements and all other information appearing on the product labels, supplemental labeling and Fact Sheets published separately for each herbicide used; use according to the most restrictive precautionary statements for each product in the tank mixture. AVOID DRIFT. USE EXTREME CARE WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

J. USE ON RASPBERRY CROPS

[DIRECTIONS FOR USE]

LABELED CROPS: Raspberry

TYPES OF APPLICATION: Preplant (Site Preparation), Middles (in between rows of bushes), Strips (within rows of bushes), Shielded sprayer, Wiper Applicator, Directed Spray, Spot Treatment, Perennial Grass Suppression, Cut Stump Application

USE INSTRUCTIONS: Apply 11 fluid ounces to 3.3 quarts of this product per acre according to directions in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of the [INSERT BRAND NAME] herbicide product label. Application may be made using a boom sprayer, controlled droplet applicator, shielded sprayer, wiper applicator, hand-held or backpack wand, lance, or orchard gun, except as otherwise directed. Use application rates at the higher end of the 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 7 quarts per acre per year.

PRECAUTIONS, RESTRICTIONS: To avoid damage, herbicide spray must not be allowed to contact desirable vegetation, including green shoots and foliage. Allow a minimum of 3 days between application and transplanting and a minimum of 14 days between application and harvest.

K. USE IN ROUNDUP READY® ALFALFA SEED PRODUCTION

[DIRECTIONS FOR USE]

TYPES OF APPLICATION: Preplant, At-planting, Preemergence, Postemergence (In-crop), Spot Treatment, Post-harvest of Alfalfa Seed

USE INSTRUCTIONS: Do NOT combine the instructions on this supplemental labeling with other directions for use on alfalfa varieties that do not contain a Roundup Ready gene listed in the "PASTURE GRASSES, FORAGE LEGUMES, AND RANGELANDS" section of the [INSERT BRAND NAME] herbicide product label.

It is important that mixing and sprayer equipment be clean and free of pesticide residue before using to apply this product to Roundup Ready alfalfa grown for seed. Alfalfa can be very sensitive to many herbicides at extremely low concentrations and care must be taken to thoroughly clean all equipment prior to use. Follow the cleaning procedures provided for all prior products used.

Refer to the following table for maximum application rates of this product with Roundup Ready alfalfa grown for seed.

IV. SUPPLEMENTAL LABELING

Maximum Application Rates	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-planting and Preemergence applications	44 fluid ounces per acre
Total In-crop application rate from emergence through the late vegetative stage	4.0 quarts per acre
Spot-treatment during early bud stage through seed harvest	Apply spray-to-wet; do not apply to the point of runoff

For rates of application and use instructions for the control of specific weeds, refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" on the [INSERT BRAND NAME] herbicide product label. Some weeds with multiple germination times or suppressed (stunted) weeds might require a second application of this product for complete control. Make the second application after some re-growth of weeds has occurred.

In addition to those weeds listed on the [INSERT BRAND NAME] label, this product will suppress or control the parasitic weed Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa grown for seed. Repeat applications might be necessary for complete control.

**PRECAUTIONS, RESTRICTIONS:** Tank mixtures with other herbicides, insecticides, or fungicides could result in crop injury or reduced weed control. There are no rotational crop restrictions following application of this product, except that for any crop NOT listed on the [INSERT BRAND NAME] herbicide product label, application must be at least 30 days prior to planting. Roundup Ready alfalfa seed is not suitable for production of alfalfa sprouts.

**DO NOT EXCEED 44 FLUID OUNCES OF THIS PRODUCT PER ACRE WHEN MAKING APPLICATION BY AIR. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATION IN THAT STATE. AVOID DRIFT. USE EXTREME CARE WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the [INSERT BRAND NAME] herbicide product label for more information on how to avoid spray drift that could cause injury to any vegetation not intended for treatment.**

**Preplant, At-Planting, Preemergence**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting Roundup Ready alfalfa grown for seed.

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** This product will control many troublesome emerged weeds with over-the-top (in-crop) application in Roundup Ready alfalfa grown for seed.

Broadcast application of up to 44 fluid ounces of this product in 3 to 40 gallons of spray solution per acre may be made using ground application equipment, or in 3 to 15 gallons of spray solution per acre using aerial application equipment, over the top of Roundup Ready alfalfa grown for seed from emergence through the late vegetative stage. Sequential applications of this product may be made with at least 7 days between applications.

Due to the biology and breeding constraints of alfalfa, up to 10 percent of the seedlings are susceptible to this product and will not survive or thrive after the first application. Make a single application of at least 22 fluid ounces of this product per acre at or before the 3 to 4 trifoliate growth stage to eliminate the effects of stand gaps created by the loss of non-Roundup Ready plants.

IV. SUPPLEMENTAL LABELING

**PRECAUTIONS, RESTRICTIONS:** 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. Do not make an over-the-top broadcast application of this product between the initiation of alfalfa budding and the harvest of seed.

**Spot Treatment**

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in Roundup Ready alfalfa grown for seed to control late emerging weeds during the early bud stage through seed harvest. Make application on a spray-to-wet basis; do not spray to the point of runoff.

**PRECAUTIONS, RESTRICTIONS:** If a spot treatment is made after the late vegetative stage, harvested seed cannot be used for alfalfa sprout production. Application made after the late vegetative stage could result in reduced seed quality and yield. Any reduction in seed quality and yield resulting from spot treatment after the late vegetative stage is the responsibility of the grower.

**Post-harvest**

**USE INSTRUCTIONS:** Following the harvest of Roundup Ready alfalfa seed, the stand may be managed for forage and hay production. Refer to the Roundup Ready alfalfa section of the **[INSERT BRAND NAME]** herbicide product label for rates and timing of application for forage and hay production.

**PRECAUTIONS AND RESTRICTIONS:** There are no rotational crop restrictions following application of this product, except that for any crop NOT listed on the **[INSERT BRAND NAME]** herbicide product label, application must be at least 30 days prior to planting.

**L. BROADCAST APPLICATION IN CHRISTMAS TREE PLANTATIONS**

**[DIRECTIONS FOR USE]**

**IF IMPROPERLY APPLIED, THIS PRODUCT HAS THE POTENTIAL TO CAUSE SEVERE CHRISTMAS TREE INJURY. FOLLOW ALL LABEL DIRECTIONS CAREFULLY.**

**USE INSTRUCTIONS:** This product may be applied as a broadcast spray over established Christmas trees that have completed at least a full growing-season after planting or transplanting. This application is approved for the following Christmas tree species:

- Douglas fir (*Pseudotsuga menziesii*)
- Fir species (*Abies* spp.)
- Spruce species (*Picea* spp.)

Apply 22 fluid ounces of this product per acre in 5 to 30 gallons of water per acre ONLY in the fall and after formation of final conifer resting buds. Final resting buds must be fully hardened and in the dormant stage. Application made at any other time could result in unacceptable Christmas tree injury.

This product may be used on Christmas trees at rates from 22 to 44 fluid ounces per acre in some areas. Consult your local Monsanto representative or Roundup supplier for specific use instructions if you require rates greater than 22 fluid ounces per acre.

**PRECAUTIONS, RESTRICTIONS:** Do not apply this product within 1 full year prior to tree harvest. Ensure that adequate buffers are maintained to prevent drift onto nearby desirable crops or vegetation. Avoid spray pattern overlap, as Christmas tree injury could occur. Read the entire "APPLICATION EQUIPMENT AND TECHNIQUES" section of the **[INSERT BRAND NAME]** herbicide product label for additional application precautions.

**DO NOT ADD SURFACTANTS, ADDITIVES CONTAINING SURFACTANTS, OR ANY OTHER ADDITIVES, INCLUDING DRIFT CONTROL ADDITIVES, TO SPRAY SOLUTIONS OF THIS PRODUCT,**

IV. SUPPLEMENTAL LABELING

AS SEVERE CHRISTMAS TREE INJURY COULD RESULT. Do not tank-mix this product with any other herbicide, insecticide or fungicide, as severe Christmas tree injury could result.

M. APPLICATION TO ROUNDUP READY® COTTON IN THE STATE OF ARIZONA ONLY

[DIRECTIONS FOR USE]

THIS PRODUCT MAY ONLY BE USED OVER THE TOP OF OR DIRECTED ONTO IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS ROUNDUP READY COTTON. **SEVERE INJURY OR DEATH OF COTTON WILL RESULT IF ANY COTTON VARIETIES THAT DO NOT HAVE THE ROUNDUP READY GENE ARE SPRAYED WITH THIS PRODUCT.**

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.

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Postemergence (In-crop), Post-Directed Sprayer, Hooded Sprayer, Preharvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready cotton in the State of Arizona.

Maximum Application Rates	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre
Total of all In-crop applications from ground cracking to layby	2.5 quarts per acre
Total Postemergence (In-crop) applications from ground cracking to 4-leaf stage	2 quarts per acre
Total In-crop applications using Selective Equipment through layby	1.3 quarts per acre
Maximum Preharvest application rate	44 fluid ounces per acre
Combined total of all In-crop applications from emergence through harvest	4 quarts per acre

PRECAUTIONS, RESTRICTIONS: DO NOT combine these use instructions with the directions for use with crop varieties that do not contain a Roundup Ready gene listed in the "ANNUAL AND PERENNIAL CROPS" section of the [INSERT BRAND NAME] herbicide product label. The combined total application of this product from cotton emergence to harvest must not exceed 4 quarts per acre.

SEQUENTIAL POSTEMERGENCE (IN-CROP) APPLICATIONS OF THIS PRODUCT OVER THE TOP OF ROUNDUP READY COTTON OR USING SELECTIVE EQUIPMENT (POST-DIRECTED) MUST BE AT LEAST 10 DAYS APART AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS.

APPLICATIONS MADE IN EXCESS OF MAXIMUM RATES STATED ON THIS PRODUCT LABELING, ARE EXPECTED TO RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS AND ARE THE SOLE RESPONSIBILITY OF THE GROWER.

The maximum use rates stated throughout this labeling apply to the rates of this product combined with the use of all other herbicides containing glyphosate as the active ingredient, whether applied separately or as a tank-mix with this product. Calculate the application rates and ensure that the total use of this and any and all other glyphosate-containing products does not exceed stated maximum use rates.

## IV. SUPPLEMENTAL LABELING

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied before, during or after planting Roundup Ready cotton in the State of Arizona.

**Postemergence (In-crop)**

USE INSTRUCTIONS: This product may be applied over the top of Roundup Ready cotton in the State of Arizona at rates up to 22 fluid ounces per acre per application from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter) using either ground or aerial application equipment. For rates of application and use instructions for the control of specific weeds, refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" on the [INSERT BRAND NAME] herbicide product label.

PRECAUTIONS, RESTRICTIONS: No more than two over-the-top broadcast applications may be made from crop emergence through the 4-leaf (node) stage of development. Unless otherwise directed on this supplemental labeling, any single over-the-top broadcast application must not exceed 22 fluid ounces per acre. The total application rate of this product for all over-the-top applications between ground cracking until the 4-leaf (node) stage combined must not exceed 2.0 quarts per acre.

**Post-Directed, Hooded Sprayer**

USE INSTRUCTIONS: This product may be applied in Roundup Ready cotton in the State of Arizona using precision post-directed or hooded sprayers through layby. Unless otherwise directed in this supplemental labeling, any single application using selective equipment must not exceed 22 fluid ounces per acre. Sequential in-crop applications using this selective equipment may be made up to a maximum of 1.3 quarts per acre.

At this cotton growth stage, use a post-directed sprayer that directs the spray to the base of the cotton plants. Avoid contact of the herbicide spray with leaves of the cotton plant. To minimize spray contact, maintain a low spray pressure (less than 30 pounds per square inch) and place nozzles in a low position directing a horizontal spray pattern under the leaves of the cotton plant and onto the weeds in the row. For best results, apply this product while weeds are small (less than 3 inches in height). See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the [INSERT BRAND NAME] herbicide product label.

PRECAUTIONS, RESTRICTIONS: No more than two post-directed applications may be made from the 5-leaf stage through layby. The combined total of in-crop applications (over-the-top plus selective equipment applications) must not exceed 2.6 quarts per acre.

**Salvage Treatment**

USE INSTRUCTIONS: From the ground cracking stage through layby, where weeds threaten to cause the loss of the crop, application of up to 32 fluid ounces per acre may be made either as an over-the-top application or as a post-directed treatment sprayed higher on the cotton plants and over the weeds.

**CROP TOLERANCE OF ROUNDUP READY COTTON HAS NOT BEEN FULLY TESTED AT THIS APPLICATION RATE. SALVAGE TREATMENTS ARE EXPECTED TO RESULT IN SIGNIFICANT BOLL LOSS, DLEAYED MATURITY AND/OR YIELD LOSS AND ARE THE SOLE RESPONSIBILITY OF THE GROWER. MAKE NO MORE THAN TWO SALVAGE TREATMENTS PER GROWING SEASON.**

PRECAUTIONS, RESTRICTIONS: The combined total of in-crop applications (over-the-top plus selective equipment applications) must not exceed 2.6 quarts per acre.

**Preharvest**

USE INSTRUCTIONS: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton in the State of Arizona after 20 percent boll crack. Up to 1.3 quarts of this product per acre may be applied using either aerial or ground application equipment.

IV. SUPPLEMENTAL LABELING

**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 preharvest to Roundup Ready cotton grown for seed.

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.

**N. APPLICATION TO ROUNDUP READY® FLEX COTTON IN THE STATE OF ARIZONA ONLY**

**[DIRECTIONS FOR USE]**

THIS PRODUCT MAY ONLY BE USED OVER THE TOP OF IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS ROUNDUP READY FLEX COTTON. SEVERE INJURY, REDUCED YIELD OR DEATH OF COTTON COULD RESULT FROM THE USE OF THE OVER-THE-TOP APPLICATIONS DESCRIBED ON THIS LABELING ON COTTON VARIETIES OTHER THAN ROUNDUP READY FLEX COTTON. Drift of this product from application made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton could cause extensive injury, including boll loss, delayed maturity and/or yield loss.

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

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Postemergence, Preharvest

<b>Maximum Application Rates</b>	
Combined total per year for all applications	5.3 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.3 quarts per acre
Total of all In-crop applications from ground cracking to 60 percent open bolls	4.0 quarts per acre
Total of all In-crop applications from layby to 60 percent open bolls	44 fluid ounces per acre
Maximum allowed from 60 percent open bolls to 7 days prior to harvest	44 fluid ounces per acre

**PRECAUTIONS, RESTRICTIONS:** The instructions provided in this supplemental labeling are specific to, and should only be used with, varieties designated as Roundup Ready Flex cotton. DO NOT combine these instructions with the directions for use with Roundup Ready cotton or Roundup Ready Flex cotton on the [INSERT BRAND NAME] product label, or with any other Roundup Ready cotton or Roundup Ready Flex cotton instructions on labeling for this or any other glyphosate-containing product.

**Preplant, At-Planting, Preemergence**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting Roundup Ready Flex cotton in the State of Arizona.

IV. SUPPLEMENTAL LABELING

PRECAUTIONS, RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre.

**Postemergence (In-crop)**

USE INSTRUCTIONS: When applied in accordance with this label, one or more applications of this product will control or suppress many perennial weeds, annual grasses and broadleaf weeds. To maximize yield potential, eliminate competing weeds early. An initial application of 22 fluid ounces per acre will control or suppress on 1 to 3 inch tall annual grasses and broadleaf weeds. For specific rates of application and instructions, refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of the [INSERT BRAND NAME] herbicide product label. This product may be applied using ground application equipment at rates up to 44 fluid ounces per acre per application postemergence to Roundup Ready Flex cotton in the State of Arizona. In addition to broadcast application, post-directed spray equipment may be used to selectively achieve weed coverage.

PRECAUTIONS, RESTRICTIONS: The maximum application rate for any single in-crop application of this product is 44 fluid ounces per acre made using ground application equipment. Do not exceed an application rate of 32 fluid ounces of this product per acre when making application using aerial application equipment. **In-crop application rates above 22 fluid ounces per acre made alone or with the addition of other crop chemical products containing surfactant could cause a crop response, including leaf speckling or leaf necrosis.** Between layby and 60 percent open bolls, the maximum combined total application rate of this product is 44 fluid ounces per acre. The maximum application rate for all applications of this product made from crop emergence to 60 percent open bolls is 4.0 quarts per acre.

**Preharvest**

USE INSTRUCTIONS: This product may be applied to Roundup Ready Flex cotton grown in the State of Arizona up to 44 fluid ounces per acre for annual and perennial weed control prior to harvest after 60 percent boll crack.

**NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest of Roundup Ready Flex cotton.

USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON, HOWEVER, DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS 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.

**O. USE IN HYBRID ROUNDUP READY® CANOLA SEED PRODUCTION SYSTEMS**

[DIRECTIONS FOR USE]

The instructions provided on this supplemental labeling are specific to use in hybrid Roundup Ready canola seed production systems. Do not combine the instructions on this supplemental labeling with directions for weed control in Roundup Ready Canola listed in the "ANNUAL AND PERENNIAL CROPS" section of the [INSERT BRAND NAME] herbicide product label, or with any other directions for use with Roundup Ready canola on labeling for this or other glyphosate-containing product.

THIS PRODUCT MAY ONLY BE USED ON CANOLA THAT CONTAINS A ROUNDUP READY GENE. Application of this product to canola that is not designated as Roundup Ready could result in severe crop



IV. SUPPLEMENTAL LABELING

injury and yield loss. The Roundup Ready designation indicates that the canola plant contains a patented gene that provides tolerance to this herbicide. Information on Roundup Ready canola can be obtained from your seed supplier or Monsanto representative.

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Postemergence (In-crop)

USE INSTRUCTIONS: It is important that sprayer and mixing equipment be clean and free of pesticide residue before being used to apply this product in hybrid Roundup Ready canola production systems. Canola can be very sensitive to many herbicides at extremely low concentrations. Take care to thoroughly clean all equipment prior to use. Follow the cleaning procedures provided for all prior products used.

Refer to the following table for maximum application rates of this product in hybrid Roundup Ready canola seed production systems. For ground application with broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre.

Maximum Application Rates	
Total of all Preplant, At-Planting, Preemergence applications	44 fluid ounces per acre
Total of all In-crop applications	22 fluid ounces per acre

PRECAUTIONS, RESTRICTIONS: 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.

**Preplant, At-Planting, Preemergence**

USE INSTRUCTIONS: This product may be applied at up to 44 fluid ounces per acre before, during or after planting canola using either ground or aerial application equipment. In no-till and stale seedbed systems, always use a burndown treatment to control existing weeds before canola emerges. Apply a preplant burndown treatment of 11 to 22 fluid ounces of this product per acre.

**Postemergence (In-crop)**

USE INSTRUCTIONS: This product may be applied using ground broadcast application equipment for the control of non-glyphosate-tolerant canola pollen parental line(s) in hybrid canola seed production fields containing both a Roundup Ready canola line(s) and a non-glyphosate-tolerant line(s).

When pollination is complete or near completion, the non-glyphosate tolerant pollen parental line(s) may be controlled with an application of 11 to 22 fluid ounces of this product per acre. Sequential applications may be used for the control of non-glyphosate-tolerant pollen parental line(s) up to a maximum total application rate of 22 fluid ounces pre acre. Allow at least 5 days between sequential applications.

**P. CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT *AMARANTHUS* spp. IN CORN, COTTON, AND SOYBEAN**

**[DIRECTIONS FOR USE]**

TANK MIXTURES: If a naturally occurring glyphosate-resistant biotype of an *Amaranthus* species is present, this product may be applied for the control of emerged non-glyphosate-resistant weeds in a tank-mix or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control of *Amaranthus*. Cultural and mechanical control practices (e.g., crop rotation and/or tillage) can also be used as appropriate. Tillage or a burndown herbicide application is encouraged prior to planting. Read and follow label directions of all products in the tank mixture. Use all products according to rates and timing specified on the product label. Not all herbicides are registered in all states

IV. SUPPLEMENTAL LABELING

on all crops. Ensure that the product being used is labeled for control of *Amaranthus* in the crop being grown.

**CORN**

**Preplant, At-Planting, Preemergence to Corn**

Apply this product in a tank-mix with a preemergence residual herbicide Harness® Xtra, Harness Xtra 5.6L, or Degree Xtra for the control of *Amaranthus* spp.

**Postemergence in Corn Hybrids with Roundup Ready 2 Technology (il-crop)**

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo,

Preemergence to Glyphosate-Resistant *Amaranthus* spp.

Apply this product in a tank-mix with a preemergence residual herbicide Harness Xtra, Harness Xtra 5.6L, or Degree Xtra for the control of *Amaranthus* spp.

Postemergence to Glyphosate-Resistant *Amaranthus* spp.

Apply this product in a tank-mix with 2,4-D or dicamba (Clarity, Banvel, or Distinct) to control emerged weeds, and a residual herbicide Harness Xtra, Harness Xtra 5.6L, or Degree Xtra for continued residual control of *Amaranthus*.spp Observe all maximum annual application rates and timing restrictions.

**COTTON**

**Preplant, At-Planting, Preemergence**

Apply this product in a tank-mix with a preemergence soil residual herbicide, pendimethalin (Prowl H20) and/or fluometuron (Cotoran) for control of *Amaranthus* spp.

**Postemergence (In-crop) in Roundup Ready Cotton and Roundup Ready Flex Cotton**

Preemergence to Glyphosate-Resistant *Amaranthus* spp.

Apply this product in a tank-mix with metolachlor prior to the 4-leaf stage in Roundup Ready cotton for the control of *Amaranthus* spp.

Preemergence to Glyphosate-Resistant *Amaranthus* spp. at layby

Apply this product in a tank-mix with a residual herbicide product diuron (Direx) or flumioxazin (Valor) as a post-directed application to control *Amaranthus* spp.

Postemergence to Glyphosate-Resistant *Amaranthus* spp.

Apply this product in a tank-mix with MSMA and diuron (Direx) or flumioxazin (Valor) to control emerged *Amaranthus* spp.

**SOYBEAN**

**Preplant, At-Planting, Preemergence**

Preemergence to Glyphosate-Resistant *Amaranthus* spp.

Apply this product in a tank-mix with the preemergence residual herbicide alachlor (INTRRO®) for control of *Amaranthus* spp. For preplant application, 2,4-D may be added to the tank-mix to help control emerged broadleaf weeds. Follow label instructions regarding application timing relative to soybean planting.

Postemergence to Glyphosate-Resistant *Amaranthus* spp.

IV. SUPPLEMENTAL LABELING

Apply this product in a tank-mix with lactofen (Cobra) or fomesafen (Flexstar) to control emerged *Amaranthus* spp.

**PRECAUTIONS, RESTRICTIONS:** Refer to each individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or under other circumstances. Read the label of all products used in the tank mixture prior to use to determine the potential for crop injury. Always predetermine the compatibility of all products to be used in the tank-mix by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides can cause incompatibility, antagonism, or a reduction in the efficacy and performance of this product. Monsanto has not tested all tank-mix product formulations for compatibility, performance, and crop safety

**Q. CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT RYEGRASS**

[DIRECTIONS FOR USE]

**TANK MIXTURES:** This product may be applied for control of non-glyphosate-resistant weeds in a tank-mix with other herbicides for application in accordance with label directions for the control of ryegrass. Read and follow label directions of all products in the tank mixture. Use all products according to rates and timing specified on the product label. Not all herbicides are registered in all states or labeled for all use-sites (orchards, non crop areas, or ditch banks) or with all crops for the management of ryegrass. Ensure that the product being used is labeled for control of ryegrass at the use site or in the crop being grown.

**Preemergence to Glyphosate-Resistant Ryegrass**

Apply this product to control emerged weeds in a tank-mix with a preemergence herbicide product labeled for control of ryegrass.

**Preemergence and Postemergence to Glyphosate-Resistant Ryegrass**

Apply this product to control emerged weeds in a tank-mix with a residual preemergence herbicide and a postemergence herbicide product (other than glyphosate) labeled for control of ryegrass before ryegrass exceeds 4 inches in height.

**Postemergence to Glyphosate-Resistant Ryegrass**

Apply this product in a tank-mix with another postemergence herbicide product labeled for control of ryegrass before ryegrass exceeds 4 inches in height.

**PRECAUTIONS, RESTRICTIONS:** Refer to each individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages and/or under other circumstances. Read the label of all products used in the tank mixture prior to use to determine the potential for crop injury. Always predetermine the compatibility of all products to be used in the tank-mix by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides could cause incompatibility, antagonism, or a reduction in the efficacy and performance of this product. Monsanto has not tested all tank-mix product formulations for compatibility, performance, and crop safety

**R. SELECTIVE WEED CONTROL ON [INSERT BRAND NAME]-TOLERANT PURE GOLD® TALL FESCUE AND AURORA GOLD® FINE FESCUE SELECTIONS**

[DIRECTIONS FOR USE]

IV. SUPPLEMENTAL LABELING

LABELLED CROPS: [INSERT BRAND NAME]-Tolerant Pure Gold Tall Fescue and Aurora Gold Fine Fescue Grown for Seed

TYPES OF APPLICATION: Postemergence

USE INSTRUCTIONS: This product may be applied at 3 to 11 fluid ounces per acre as a postemergence spray on [INSERT BRAND NAME]-tolerant tall and fine fescue grown for seed to control or suppress the following weeds:

- annual bluegrass mustards
- chickweed
- shepherd's-purse
- dandelion
- downy brome
- pennycress
- sowthistle
- quackgrass
- cheatgrass
- fleabane
- wild oat
- Canada thistle

Application may be made 6 weeks after germination and to established grass crop after growth resumes in the fall up until onset of dormancy, and in the Spring after dormancy breaks until 60 days prior to harvest. Avoid spraying during or within two weeks after periods when air temperatures fall below 25°F.

For a complete list of weeds controlled or suppressed and for information on application rates and timing for the control of specific weeds, see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of the [INSERT BRAND NAME] product label.

**NOTE:** The limited range of application rates for this use will limit the level of control of some weed species listed for this product.

**PRECAUTIONS, RESTRICTIONS:** Only two applications per crop growth cycle may be made onto any one site. If two applications are required, only one fall and one spring application may be made during one 12 month cycle. Some discoloration and yellowing of the [INSERT BRAND NAME]-tolerant tall and fine fescue selections could occur at higher rates of application and a reduction in stand of these selections could occur under stress conditions. Remove domestic livestock from the seed production field prior to application. Wait 60 days after making this application before grazing or harvesting the treated area.

**S. TANK MIXTURES FOR TOUGH-TO-CONTROL WEEDS**

[DIRECTIONS FOR USE]

**USE SITES:** This product may be used for weed control in non-crop areas, including airports, apartment complexes, Christmas tree farms, commercial sites, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, schools, sod or turf seed farms, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.

**USE INSTRUCTIONS:** This product will control or suppress the weeds listed in the "WEEDS CONTROLLED" section on the [INSERT BRAND NAME] herbicide product label when applied at the rates listed on the label. For tough-to-control species, where dense stands occur, or where conditions for control are not ideal, application of 4 to 7 quarts of this product per acre may be made for improved results.

**TANK MIXTURES:** This product may be tank-mixed with the following products to increase the spectrum of emerged weeds controlled or to provide preemergence weed control, provided that the specific product being used is labeled for application to the target site. This product may be applied at any rate listed on

IV. SUPPLEMENTAL LABELING

the product label in a tank mixture with these products. Ensure that the specific product being used is labeled for application to the target use site. Refer to the individual product labels for approved non-crop use sites, application rates, carrier volumes and precautionary statements.

2,4-D	Hyvar X	Poast
Arsenal *	Hyvar X-L	Quicksilver
atrazine	Krenite	Ronstar 50 WSP
Barricade 65WG	Krovar I DF	Sahara DG
Crossbow L	Landmark II MP	simazine
dicamba	Landmark MP	Spike 80DF
diuron	Landmark XP	Surflan AS
Endurance	Milestone	Surflan WDG
Escort	Oust XP	Telar DF
Escort XP	Outrider	Transline
Gallery 75 DF	Overdrive	Velpar DF
Garlon 3A	pendimethalin	Velpar L
Garlon 4	Plateau	
Goal 2XL	Plateau DG	

\* Arsenal is not approved for use in the state of California.

Refer to the individual product labels for approved non-crop use sites, application rates, carrier volumes and precautionary statements.

**PRECAUTIONS, RESTRICTIONS:** Read the label of all products in the tank mixture and use each product according to label directions. Refer to the individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

Always predetermine the compatibility of tank-mix products together in the carrier before using by mixing small proportional quantities in advance. 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 applied that day. Tank mixtures allowed to stand overnight could result in reduced weed control. Maintain good agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, re-suspend the mixture using thorough and vigorous agitation before spraying is resumed.

Do not allow spray mixtures of this herbicide to mist, drip, drift or splash onto desirable vegetation, as injury or destruction may occur. Do not apply when wind or other conditions favor drift.

When used in combination as directed by **[INSERT COMPANY NAME]**, the liability of **[INSERT COMPANY NAME]** shall in no manner extend to any damage, loss or injury not solely and directly caused by the inclusion of the **[INSERT COMPANY NAME]** product in such combination use.

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IV. SUPPLEMENTAL LABELING

**T. TANK MIXTURES FOR IMPROVED CONTROL OF BENTGRASS (*AGROSTIS spp.*)**

[DIRECTIONS FOR USE]

TANK MIXTURES: Apply 1.6 to 2.2 quarts of this product in a tank-mix with one or more of the following products at the rates indicated in a spray volume of 20 to 40 gallons per acre for improved control of bentgrass (*Agrostis spp.*) using broadcast application.

<b>Tank-Mix Product</b>	<b>Application Rate (fluid ounces per acre)</b>
ENVOY	34 fluid ounces
FUSILADE II	24 fluid ounces
FUSION	9 fluid ounces
VANTAGE	60 fluid ounces

Dry ammonium sulfate may be added to the spray solution at a concentration of 1 to 2 percent by weight (8.5 to 17 pounds per 100 gallons of water) for these broadcast applications. An equivalent amount of liquid formulation of ammonium sulfate may also be used. Ensure that the 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.

Re-treatment might be needed in the event of incomplete control.

For improved control of bentgrass by spot treatment using a hand-held sprayer, apply this product at a concentration of 1.5 fluid ounces per gallon of spray solution in a tank-mix with one or more of the following products at the concentration (fluid ounces of product per gallon of spray solution) indicated. Apply these mixtures using a spray-to-wet technique; do not apply to the point of runoff.

<b>Tank-Mix Product</b>	<b>Concentration (fluid ounces per gallon of spray solution)</b>
Envoy	1.3 fluid ounces per gallon
Fusilade II	0.75 fluid ounces per gallon
Fusion	0.25 fluid ounces per gallon
Vantage	3 fluid ounces per gallon

PRECAUTIONS, RESTRICTIONS: Read the label of all products in the tank mixture and use each product according to label directions. Refer to the individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. AVOID DRIFT. USE EXTREME CARE WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

All trademarks are the property of their respective owners.

**U. CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT COMMON AND GIANT RAGWEED (*AMBROSIA spp.*) IN CORN, COTTON AND SOYBEAN**

[DIRECTIONS FOR USE]

TANK MIXTURES: If a naturally occurring glyphosate-resistant biotype of common or giant ragweed is present, this product may be applied for the control of emerged non-glyphosate-resistant weeds in a tank-

IV. SUPPLEMENTAL LABELING

mix or applied sequentially with an appropriately labeled herbicide with a different mode of action to control ragweed. Cultural and mechanical control practices (e.g., crop rotation and/or tillage) can also be used as appropriate. Tillage or a burndown herbicide application is encouraged prior to planting.

Read and follow label directions of all products in the tank mixture. Use all products according to rates and timing specified on the product label. Not all herbicides are registered in all states or labeled for all sites or on all crops for management of ragweed. Ensure that the product being used is labeled for control of ragweed (*Ambrosia* spp.) in the crop being grown.

**CORN**

**Preplant, At-Planting, Preemergence to Corn**

Apply this product in a tank-mix with a preemergence residual herbicide containing atrazine, Harness® Xtra, Harness Xtra 5.6L or Degree® Xtra, for the control of ragweed species prior to the emergence of corn.

**Postemergence in Corn Hybrids with Roundup Ready 2 Technology (In-crop)**

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo.

Preemergence to Glyphosate-Resistant Ragweed Species

Apply this product in a tank-mix with a preemergence residual herbicide containing atrazine, Harness Xtra, Harness Xtra 5.6L, or Degree Xtra for the control of ragweed species.

Postemergence to Glyphosate-Resistant Ragweed Species

Apply this product in a tank-mix with 2,4-D or dicamba (Clarity, Banvel, or Distinct), to control emerged weeds, and a residual herbicide, Harness Xtra, Harness Xtra 5.6L or Degree Xtra, for continued control of ragweed species. Observe the maximum annual application rate and timing restrictions.

**COTTON**

**Preplant, At-Planting, Preemergence to Cotton**

Preemergence to Glyphosate-Resistant Common Ragweed Species

For burndown application, apply this product in a tank-mix with a preemergence broadleaf herbicide, Clarity or 2,4-D. For preplant application, 2,4-D may be added to the tank-mix to help control emerged broadleaf weeds. Follow label directions regarding application timing relative to cotton planting. For application after planting, but prior to the emergence of cotton, apply this product in a tank-mix with the preemergence residual herbicide Cotoran for continued control of common ragweed.

**SOYBEAN**

**Preplant, At-Planting, Preemergence to Soybean**

Preemergence to Glyphosate-Resistant Ragweed Species

Apply this product in a tank-mix with the preemergence residual herbicide cloransulam (FirstRate) where ALS resistance is not an issue. For preplant applications, 2,4-D may be added to the tank-mix to help control emerged broadleaf weeds. Follow label directions regarding application timing relative to planting soybean.

Postemergence to Glyphosate-Resistant Ragweed Species

Apply this product in a tank-mix with cloransulam (FirstRate), lactofen (Cobra) or fomesafen (Flexstar) to control emerged ragweed species.

IV. SUPPLEMENTAL LABELING

**PRECAUTIONS, RESTRICTIONS:** Always read and follow all label directions for all products in the tank mixture. Refer to each individual tank-mix product label for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank mixture. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or under other circumstances. Read the label of all products used in the tank mixture prior to use to determine the potential for crop injury. Always predetermine the compatibility of all products to be used in the tank-mix by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides can cause incompatibility, antagonism, or a reduction in the efficacy and performance of this product. Monsanto has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

**V. CONTROL AND MANAGEMENT OF GLYPHOSATE-RESISTANT JOHNSONGRASS IN CORN, COTTON AND SOYBEAN**

**[DIRECTIONS FOR USE]**

**TANK MIXTURES:** A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in corn, cotton and soybean cropping systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g., crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**CORN**

**Preplant, At-Planting, Preemergence to Corn**

Control emerged weeds with a burndown application prior to planting or the emergence of corn. For burndown, apply this product before, during or after planting, but prior to crop emergence, to control a broad spectrum of emerged weeds, along with Harness Xtra, Harness Xtra 5.6L or Degree Xtra for additional weed control and suppression of emerged johnsongrass.

**Postemergence in Corn with Roundup Ready 2 Technology (in-crop)**

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo.

Apply this product to control emerged weeds in a tank-mix with Accent (nicosulfuron), Equip (foramsulfuron and iodosulfuron), or Option (foramsulfuron) for additional weed control and suppression of emerged johnsongrass.

**COTTON**

**Preplant, At-Planting, Preemergence to Cotton**

Control emerged weeds with a burndown application prior to planting or the emergence of cotton. For burndown, this product may be applied before, during or after planting cotton, but prior to crop emergence, to control a broad spectrum of emerged weeds. For additional control or suppression of rhizome johnsongrass prior to planting cotton, apply this product along with a product containing pendimethalin or trifluralin. For additional control of emerged johnsongrass, apply this product in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim).

**Postemergence to Roundup Ready Cotton and Roundup Ready Flex Cotton (In-crop)**

Apply this product to control emerged weeds and in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim) for the suppression of emerged johnsongrass.



IV. SUPPLEMENTAL LABELING

**SOYBEAN**

**Preplant, At-Planting, Preemergence to Soybean**

Control emerged weeds with a burndown application prior to planting or the emergence of soybean. For burndown, apply this product before, during or after planting, but prior to crop emergence, to control a broad spectrum of emerged weeds. For control or suppression of rhizome johnsongrass, apply this product in a tank-mix with a product containing one of the following active ingredients: alachlor, metolachlor, pendimethalin, or trifluralin. For suppression of emerged johnsongrass, apply this product in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim).

**Postemergence to Roundup Ready Soybean and Roundup Ready 2 Yield Soybean (In-crop)**

Apply this product to control emerged weeds and in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim) for the suppression of emerged johnsongrass.

**PRECAUTIONS/RESTRICTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides could cause incompatibility, antagonism, or a reduction in product efficacy. Monsanto has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank.

Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**W. USE IN RESEARCH FIELD TRIALS AND IN SEED PRODUCTION OF CORN HYBRIDS USING THE ROUNDUP HYBRIDIZATION SYSTEM (RHS)**

**[DIRECTIONS FOR USE]**

The RHS designation indicates that the corn contains Monsanto proprietary gene technology that allows for tassel-only susceptibility to this product. Use of this product on corn hybrids or inbreds that are not designated as RHS or as corn containing Roundup Ready 2 Technology may result in severe crop injury and yield loss.

**EARLY SEASON WEED CONTROL**

This product may be used for early season weed control up to the V8 stage (8 leaves with collars) in corn seed production fields planted with corn containing Roundup Ready 2 Technology and RHS corn inbred recipient lines.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop), Spot Treatment, Preharvest, Post-Harvest

**Preplant, At-Planting, Preemergence**

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

IV. SUPPLEMENTAL LABELING

TANK MIXTURES: This product may be tank-mixed with the products listed below. Ensure that the specific product being used is labeled for application prior to emergence of corn. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water, or 10 to 60 gallons of nitrogen, per acre.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to corn:*

2,4-D, acetochlor, alachlor, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, dimethenamid, dimethenamid-p, flufenacet, flumetsulam, flumiclorac pentyl ester, isoxaflutole, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, rimsulfuron; saflufenacil, simazine

Aim, Aim EC, Axiom, Balance, Balance PRO, Banvel, Bicep MAGNUM, Bicep II MAGNUM, Bicep Lite II MAGNUM, Bullet, Cinch, Cinch ATZ, Clarity, Define, Degree, Degree Xtra, Distinct, Dual MAGNUM, Dual II MAGNUM, Epic, Frontier, FulTime, Guardsman, Guardsman MAX, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Keystone, Keystone LA, Lariat, Leadoff, Linex, Lorox, Marksman, Me-Too-Lachlor II, Micro-Tech, Outlook, Prowl, Python, Python II, Radius, Resolve, Resource, Shark, Sharpen, Simazine, Stalwart, Stalwart C, Stalwart Xtra, Surpass, TopNotch]

PRECAUTIONS, RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.3 quarts per acre per season. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

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

**Postemergence (In-crop)**

When applied as directed, the product will control annual grasses and broadleaf weeds listed on the label. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product. Make a postemergence application of 16 to 22 fluid ounces of this product per acre before weeds exceed 4 inches in height, or before they become competitive with the crop. If new flushes of weeds occur, make a sequential application of this product at 16 to 22 fluid ounces per acre before weeds exceed 4 inches in height.

TANK MIXTURES: This product may be tank-mixed with the following products. Ensure that the specific product being used is labeled for application postemergence (in-crop) to corn. Read and follow label directions of all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to corn:*

2,4-D, acetochlor, alachlor, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, foramsulfuron, halosulfuron-methyl, iodosulfuron-methyl-sodium, mesotrione, nicosulfuron, rimsulfuron, thifensulfuron methyl, topramezone

Aim EC, Banvel, Basis, Basis Gold, Bullet, Callisto, Clarity, Degree, Degree Xtra, Distinct, Equip, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Impact, Marksman, Micro-Tech, Option, Resolve, Resource, Shark, Status]

Tank-mix Partner	Maximum Height Of Corn At Application
Degree Degree Xtra	11 inches

IV. SUPPLEMENTAL LABELING

Harness Harness Xtra Harness Xtra 5.6L	
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:** For in-crop weed control, allow a minimum of 10 days between applications of this product. Refer to individual tank-mix product label for restrictions and precautions, use according to the most restrictive precautionary statements for each product in the tank mixture.

**TASSEL CONTROL**

This product may be used as an over-the-top broadcast application for tassel control in RHS corn inbred recipient lines in seed production research fields planted with corn containing Roundup Ready 2 Technology as the pollen donor.

**USE INSTRUCTIONS:** This product may be applied for tassel control at any growth stage including growth stages later than V8, at use rates from 11 to 44 fluid ounces per acre. Multiple applications are permitted.

**Preharvest**

**USE INSTRUCTIONS:** This product may be applied for annual and perennial weed control prior to harvest at use rates up to 22 fluid ounces per acre.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied for weed control after crop harvest. 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:** The maximum combined total amount of this product that may be applied per year, including weed control and tassel control, is 5.3 quarts per acre. Do not use corn fodder, forage, grain or stover for food or feed. Do not feed or graze corn. Do not process harvested corn grain or resulting seed for food or feed.