

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

October 18, 2016

Mr. Stephen Adams Regulatory Affairs Manager Monsanto Company 700 Chesterfield Parkway North Chesterfield, MO 63017

Subject: Label Amendment – Reformatting Label and Incorporation of Supplemental

Labeling into Section 3 Master Label

Product Name: Roundup Custom Herbicide

EPA Registration Number: 524-343 Application Date: March 11, 2015 Label Resubmitted: October 17, 2016

Decision Number: 502399

### Dear Mr. Adams:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Continued on Page 2 of 2

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Beth Benbow by phone at 703-347-8072, or via email at <a href="mailto:Benbow.bethany@epa.gov">Benbow.bethany@epa.gov</a>.

Sincerely,

Reuben Baris, Product Manager 25

Herbicide Branch

Registration Division (7505P)

Office of Pesticide Programs

Enclosure

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

**Primary Brand Name:** 

# Roundup Custom® Herbicide

Alternate Brand Names:

# AquaMaster® Herbicide Roundup® AquaMaster Herbicide Roundup Custom® for Aquatic & Terrestrial Use

# Master Label Table of Contents

I.	Container Labels	2 – 31
II.	Directions for Use with Food and Feed Crops	32 – 120
III.	Directions for Use for on Aquatic and Other Terrestrial Sites	121 – 170

<sup>\*\*</sup>See each label section for more detailed table of contents\*\*

ACCEPTED

10/18/2016

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. FO 4 O 40

524-343

### 1.0 CONTAINER LABELS WITH SEPARATE DIRECTIONS FOR USE BOOKLET

[Pesticide containers that have the complete directions for use booklet attached separately as labeling to and detachable from the container, require a label that is securely attached to the pesticide container.]

# 1.1 Complete Label Text for Container Label with Separate Directions for Use Booklet

[The following represents the complete label text that can appear as a single or dual (front and back) container label, with separate, detachable complete directions for use labeling (booklet). This container label may also appear as a multi-page label (see the following section for minimum base label content).]
[FRONT PANEL]

# [INSERT BRAND NAME] [Logo optional]

GROUP	9	HERBICIDE
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[Optional marketing claims and/or logos on this Master Label may be added to the Front Panel]

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

[Alternative product statement: Selective broad-spectrum weed control in Roundup Ready® crops]

[Alternative product statement: Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads]

[Alternative product statement for products that also contain aquatic, industrial, turf, ornamental, select crop and other terrestrial uses: A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, [Optional text, if applicable: select crop,] and other listed terrestrial weed control. (For a complete list of aquatic and terrestrial uses, see the Directions for Use section in the attached labeling booklet.)]

[Optional statement for limited-geography product distribution: This product is not registered in all states.] [Optional text: See inside attached labeling booklet for more details.]

[Additional optional statements for limited-geography product distribution: For control of annual and perennial weeds in [list states and county-level information, as appropriate, where product is registered and distributed]. [Optional text: \*County Distribution:] [Optional text: see inside attached labeling booklet for details.] [Optional text: In [list states] this product is distributed in the counties listed below:] [list counties by state]

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

## **ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

[Optional label text that will be updated at the time of printing, if necessary: This product is protected by U.S. Patent No.'s [List appropriate patents].]

[Optional label text, if applicable: Other Patents Pending.]

[Optional label text, if applicable: No license granted under any non-U.S. patent(s).]

[Option to insert reference to a Monsanto Patent Website: For a list of patents, if any, covering this product or its use, please go to www.monsantotechnology.com.]

EPA Reg. No. 524-343

EPA Est. [Insert appropriate EPA establishment number: 524-IA-1; 524-LA-1; or Other; or blank space]

[Alternative EPA establishment text: EPA Est. (L) 524-LA-1 or (M) 524-IA-1 Lot number prefix (L) or (M) indicate appropriate establishment number.] [This lot number relationship with the establishment number can be expanded or changed to include additional or add new producing sites as appropriate.]

Keep out of reach of children

# CAUTION

[Optional label statement, if applicable for front-and-back container label: See back panel for additional] [Optional text, as applicable: Precautions [and] First Aid]

[Optional label statement, if applicable for multi-page container label: See inside for additional] [Optional text, as applicable: Precautions [and] First Aid]

See attached labeling booklet for Complete Directions for Use [Optional text: in English and Spanish].

[Alternative label statement: See inside for Complete Directions for Use] [Optional text: in English and Spanish].

Read the entire label before using this product.

Use only according to label directions.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement [Optional text, if statement not included on the container label: at the end of the attached labeling 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 COMPANY 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 COMPANY.]

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

NET [insert appropriate value] GAL [or other appropriate unit of measure] [Alternative text: NET CONTENTS]

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

[Optional text: Open Here]

[ADDITIONAL CONTENT THAT MAY APPEAR ON ANY PANEL OR INSIDE MULTI-PAGE LABEL]

#### PRECAUTIONARY STATEMENTS

### **Hazards to Humans and Domestic Animals**

Keep out of reach of children

# CAUTION

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation 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)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks and shoes.

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

# **User Safety Recommendations**

Users should:

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

# **Environmental Hazards**

[For labels without aquatic uses: 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 and rinsate.]

[Alternative text for labels with aquatic uses only: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

[Alternative text for labels with both aquatic and terrestrial uses: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean highwater mark [Optional text, if applicable: , except when applying this product by air over the forest canopy]. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

# **Physical or Chemical Hazards**

Spray solutions of this product may be mixed, stored and applied using 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 and cause 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 regulation.

# **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.

[The following Non-Agricultural Use Requirements are not required to be on the container label, but must appear in the Complete Directions for Use booklet.]

# **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.

See attached labeling booklet for complete Agricultural and Non-Agricultural Use Requirements of the Worker Protection Standard and Directions for Use [Optional text: in English and Spanish].

### 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 ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or shake container, or recirculate contents of larger containers, to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Keep container closed to prevent spills and contamination.

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

**CONTAINER HANDLING AND DISPOSAL:** [Insert appropriate Container Handling and Disposal Statement and Refilling Limitation from the following options]

[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.

[Alternative 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 this 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 mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINER AND OTHER NONREFILLABLE 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 this container. Contact your state regulatory agency to determine allowable practices in your state.

[Alternative 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 mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to 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 mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

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

Nonrefillable container. Do not reuse or refill this container.

[Alternative 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 this 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.

[Optional label text: For containers not equipped with pumping systems,] Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank. Fill the container ½ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth for 30 seconds, ensuring at least one complete revolution. 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 mix-tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

[Alternative or additional triple rinsing instructions for large containers equipped with pumping systems: [Optional label text: For large containers equipped with pumping systems,] Triple rinse as follows: Empty the remaining contents into application equipment or 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. Repeat this procedure two more times.]

Pressure rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to this container, if available. If no recycling information is available on this container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling – Call 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)]

[Optional additional container disposal statement: IBC EMPTY? – FREE CALL – 1-888-SCHUETZ (1-888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statement: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

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

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 the container into application equipment or 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.

[Optional container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to this container, if available. If no recycling information is available on this container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location.]

[Optional additional container disposal statement: IBC EMPTY? – FREE CALL – 1-888-SCHUETZ (1-888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statement: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

[Optional container disposal statement: To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling — Call 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)]

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

CUBE Monsanto Refillable Delivery System

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]

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

[Amplify, Bullet, Certainty, Degree, Degree Xtra, Harness, INTRRO, Lariat, Micro-Tech, Monsanto and Vine Design, Outrider, Roundup, Roundup Custom and Design, [ALTERNATE BRAND NAME and DESIGN], Roundup Original, Roundup Ready, Roundup Ready 2 Technology, Roundup Ready 2 Yield, Roundup Ready PLUS and Design, Rowel, TripleFLEX, TRUEBLUE ADVANTAGE PROVEN RELIABLE SUPPORTED and Design, TruFlex and Warrant] are [registered] trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.]

[Insert LOT number or LOT number will be printed directly on the container]

©[Year]

[Insert date]

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

[Optional text that can be placed on the area of the base label where the directions-for-use booklet is attached and can only be seen if the booklet is removed: COMPLETE DIRECTIONS FOR USE HAVE BEEN REMOVED]

#### 2.0 EXTENDED CONTENT LABELS

[Extended content labels (ECL) have the complete directions for use attached as additional pages directly to a base label that is securely attached to the pesticide container.]

# 2.1 Base Label for Extended Content Labels

[The following text represents the MINIMUM information that must be on the label that is securely attached to the primary pesticide container. Additional label information from the complete directions for use sections and the extended label contents included in this Master Label may be added to this base label as space allows.]

# [INSERT BRAND NAME] [Logo optional]

GROUP	9 HERBICIDE
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[Optional marketing claims and/or logos in this Master Label may be added to the Base Label, if space allows]

# **ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%

100.0%

\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

#### PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children

# CAUTION

[Optional base label text, if space allows: 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)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks and shoes.

[Optional base label text, as applicable: See attached labeling for additional] [Optional text, as applicable: Precautions, First Aid [and] information on Personal Protective Equipment].

#### **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 regulation.

# **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.

See Complete Directions for Use attached to this label for complete [Optional text, as applicable: Agricultural and Non-Agricultural Use Requirements of the Worker Protection Standard, Directions for Use and Limit of Warranty and Liability] [Optional label text, if applicable: in English and Spanish].

[Alternative label statement: See attached label booklet for complete] [Optional label text, as applicable: Agricultural and Non-Agricultural Use Requirements of the Worker Protection Standard, Directions for Use and Limit of Warranty and Liability] [Optional label text, if applicable: in English and Spanish].

#### 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 ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or

shake container, or recirculate contents of larger containers, to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Keep container closed to prevent spills and contamination.

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

**CONTAINER HANDLING AND DISPOSAL:** [Insert appropriate Container Handling and Disposal Statement and Refilling Limitation from the following options]

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

Nonrefillable container. Do not reuse or refill this container.

[Alternative 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 this 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 mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINER AND OTHER NONREFILLABLE 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 this container. Contact your state regulatory agency to determine allowable practices in your state.

[Alternative 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 mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to 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 mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

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

Nonrefillable container. Do not reuse or refill this container.

[Alternative 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 this 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.

[Optional label text: For containers not equipped with pumping systems,] Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank. Fill the container ½ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth for 30 seconds, ensuring at least one complete revolution. 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 mix-tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

[Alternative or additional triple rinsing instructions for large containers equipped with pumping systems: [Optional label text: For large containers equipped with pumping systems,] Triple rinse as follows: Empty the remaining contents into application equipment or 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. Repeat this procedure two more times.]

Pressure rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert

pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to this container, if available. If no recycling information is available on this container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling – Call 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)]

[Optional additional container disposal statement: IBC EMPTY? – FREE CALL – 1-888-SCHUETZ (1-888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statement: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

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

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 the container into application equipment or 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.

[Optional container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to this container, if available. If no recycling information is available on this container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location.]

[Optional additional container disposal statement: IBC EMPTY? - FREE CALL - 1-888-SCHUETZ (1-

888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statement: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

[Optional container disposal statement: To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling – Call 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)]

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

CUBE Monsanto Refillable Delivery System

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]

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

EPA Reg. No. 524-343

EPA Est. [Insert appropriate EPA establishment number: 524-IA-1; 524-LA-1; or Other; or blank space]

[Alternative EPA establishment text: EPA Est. (L) 524-LA-1 or (M) 524-IA-1 Lot number prefix (L) or (M) indicate appropriate establishment number.] [This lot number relationship with the establishment number can be expanded or changed to include additional or add new producing sites as appropriate]

NET [insert appropriate value or leave blank line for refillable container] GAL [Alternative label text: NET CONTENTS]

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

©[Year]

[Insert LOT number or LOT number will be printed directly on the container]

[Insert print plate number and barcodes as applicable]

[Optional text that will be hidden behind the attached Extended Content Label and only become visible if the ECL is removed: COMPLETE DIRECTIONS FOR USE HAVE BEEN REMOVED]

## 2.2 Extended Content

[The following represents the complete labeling text that must appear on the additional pages attached to the container base label as an Extended Content Label with the complete directions for use.]

[FRONT PANEL]

# [INSERT BRAND NAME] [Logo optional]

GROUP	9	HERBICIDE
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[Optional marketing claims and/or logos on this Master Label may be added to the Front Panel]

A broad-spectrum postemergence herbicide for weed control in many agricultural systems.

[Alternative product statement: Selective broad-spectrum weed control in Roundup Ready® crops]

[Alternative product statement: Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads]

[Alternative product statement for products that also contain aquatic, industrial, turf, ornamental, select crop and other terrestrial uses: A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, [Optional text, if applicable: select crop,] and other listed terrestrial weed control. (For a complete list of aquatic and terrestrial uses, see the Directions for Use section inside [Alternative text: of] this labeling.)]

[Optional statement for limited-geography product distribution: This product is not registered in all states.] [Optional text: See inside attached labeling for more details.]

[Additional optional statements for limited-geography product distribution: For control of annual and perennial weeds in] [list states and county-level information, as appropriate, where product is registered and distributed]. [Optional text: \*County Distribution:] [Optional text: see inside attached labeling for details.] [Optional text: In [list states] this product is distributed in the counties listed below:] [list counties by state]

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional label text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

#### **ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

[Optional label text that will be updated at the time of printing, if necessary: This product is protected by U.S. Patent No.'s [List appropriate patents].]

[Optional label text, if applicable: Other Patents Pending.]

[Optional label text, if applicable: No license granted under any non-U.S. patent(s).]

[Option to insert reference to a Monsanto Patent Website: For a list of patents, if any, covering this product or its use, please go to www.monsantotechnology.com.]

EPA Reg. No. 524-343

EPA Est. [Insert appropriate EPA establishment number: 524-IA-1; 524-LA-1; or Other; or blank space]

[Alternative EPA establishment text: EPA Est. (L) 524-LA-1 or (M) 524-IA-1 Lot number prefix (L) or (M) indicate appropriate establishment number.] [This lot number relationship with the establishment number can be expanded or changed to include additional or add new producing sites as appropriate]

Keep out of reach of children

# CAUTION

[Optional label statement, if applicable: See inside for additional] [Optional text, as applicable: Precautions [and] First Aid].

See inside for Complete Directions for Use [Optional text: in English and Spanish].

[Alternative label statement: See attached labeling for Complete Directions for Use] [Optional text: in English and Spanish].

Read the entire label before using this product.

Use only according to label directions.

Read the LIMIT OF WARRANTY AND LIABILITY statement [Optional text, if statement not included on the container label: at the end of the attached labeling] before buying or using. If terms are not acceptable, return at once unopened.

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

NET [insert appropriate value] GAL [or other appropriate unit of measure] [Alternative text: NET CONTENTS]

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

©[Year]

[Insert date]

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

[Optional text: Open Here]

## [EXTENDED CONTENT]

[For Extended Content Label, insert Complete Directions for Use, beginning with the Table of Contents from Parts II and/or III of this Master Label, as appropriate]

# 3.0 SECONDARY PACKAGING FOR SHIPPING AND SALE

[This section defines labeling for secondary packaging of multiple units of this product that are themselves fully labeled for individual sale, but are distributed and can also be sold as a multi-pack unit.]

### 3.1 Secondary Packaging for Two 2.5-Gallon Nonrefillable Containers

[FRONT PANEL]

# [INSERT BRAND NAME] [Logo optional]

GROUP	9	HERBICIDE
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[Optional marketing claims and/or logos included on this Master Label may be added to this secondary packaging]

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

[Alternative product statement: Selective broad-spectrum weed control in Roundup Ready® crops]

[Alternative product statement: Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads]

[Alternative statement for products that also contain aquatic, industrial, turf, ornamental, select crop and other terrestrial uses: A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, [Optional text, if applicable: select crop,] and other listed terrestrial weed control. (For a complete list of aquatic and terrestrial uses, see the Directions for Use section of the attached labeling [Optional text: booklet] inside.)]

[Optional statement for limited-geography product distribution: This product is not registered in all states.] [Optional text: See labeling [Optional text: booklet] inside for more details.]

[Additional optional statements for limited-geography product distribution: For control of annual and perennial weeds in [list states and county-level information as appropriate where product is registered and distributed]. [Optional text: \*County Distribution:] [Optional text: see labeling [Optional text: booklet] inside for details.] [Optional text: In [list states] this product is distributed in the counties listed below:] [list counties by state]

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional label text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

#### **ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

[Optional label text that will be updated at the time of printing, if necessary: This product is protected by U.S. Patent No.'s [List appropriate patents].]

[Optional label text, if applicable: Other Patents Pending.]

[Optional label text, if applicable: No license granted under any non-U.S. patent(s).]

[Option to insert reference to a Monsanto Patent Website: For a list of patents, if any, covering this product or its use, please go to www.monsantotechnology.com.]

EPA Reg. No. 524-343

EPA Est. [Insert appropriate pesticide establishment number: 524-IA-1; 524-LA-1; or Other; or blank space]

[Alternative EPA establishment text: EPA Est. (L) 524-LA-1 or (M) 524-IA-1 Lot number prefix (L) or (M) indicate appropriate establishment number.] [This lot number relationship with the establishment number can be expanded or changed to include additional or add new producing sites as appropriate]

Keep out of reach of children

# **CAUTION**

[Optional label text, if applicable: See side panel for additional] [Optional text, as applicable: Precautions [and] First Aid].

See labeling booklet inside for Complete Directions for Use [Optional text: in English and Spanish].

[Alternative label text: See attached labeling inside for Complete Directions for Use [Optional text: in English and Spanish].

Read the entire label before using this product.

Use only according to label directions.

Read the LIMIT OF WARRANTY AND LIABILITY statement [Optional text, if applicable: on side panel] before buying or using. If terms are not acceptable, return at once unopened.

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

Two 2.5 GAL Units

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

©[Year]

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

[ADDITIONAL CONTENT]

# PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children

# **CAUTION**

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation 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)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks and shoes.

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

# **User Safety Recommendations**

#### Users should:

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

#### **Environmental Hazards**

[For labels without aquatic uses: 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 and rinsate.]

[Alternative text for labels with aquatic uses only: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

[Alternative text for labels with both aquatic and terrestrial uses: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean highwater mark [Optional text, if applicable: , except when applying this product by air over the forest canopy]. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

# **Physical or Chemical Hazards**

Spray solutions of this product may be mixed, stored and applied using 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 and cause 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 may only be used in accordance with the Directions for Use on this label or in separately published supplemental labeling. Supplemental labeling can be obtained from your Authorized Monsanto Retailer or Monsanto Company Representative.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# **Agricultural Use Requirements**

Use this product 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.

See labeling booklet inside for complete Agricultural and Non-Agricultural Use Requirements of the Worker Protection Standard and Directions for Use [Optional label text: in English and Spanish].

[Alternative label statement: See attached labeling inside for complete Agricultural and Non-Agricultural Use Requirements of the Worker Protection Standard and Directions for Use [Optional text: in English and Spanish].

## 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 ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or shake container, or recirculate contents of larger containers, to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in the 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.

**CONTAINER HANDLING AND DISPOSAL:** [NOTE: Container Handling and Disposal Statement must match exactly the statement that is on the 2.5-gallon container inside the packaging.]

Nonrefillable container. Do not reuse the 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.

[Alternative container statement: Nonrefillable container. Do not reuse or refill the container.]

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

Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to 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 mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

For product information or assistance using this product, call toll-free 1-800-332-3111.

## **LIMIT OF WARRANTY AND LIABILITY**

Monsanto Company ("Company") warrants that this product conforms to the chemical description on the label. 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 use this product only for the purposes of and in accordance with the Complete Directions for Use label ("Directions") and 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, injuries 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, crop injury or 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, use and/or application in any manner not explicitly set forth in or inconsistent with 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.

[Optional statement for agricultural-use products, if applicable: 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 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.

[Amplify, Bullet, Certainty, Degree, Degree Xtra, Harness, INTRRO, Lariat, Micro-Tech, Monsanto and Vine Design, Outrider, Roundup, Roundup Custom and Design, [ALTERNATE BRAND NAME and DESIGN], Roundup Original, Roundup Ready, Roundup Ready 2 Technology, Roundup Ready 2 Yield, Roundup Ready PLUS and Design, Rowel, TripleFLEX, TRUEBLUE ADVANTAGE PROVEN RELIABLE SUPPORTED and Design, TruFlex and Warrant] are [registered] trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

[Insert UN packaging certification, if applicable]

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

[Optional packaging text: THIS SIDE UP]

# 4.0 NONREFILLABLE SMART-PAK CONTAINER

[The Smart-Pak container is a composite packaging consisting of a lightweight plastic container inside a rigid cardboard packaging to give it needed support required during shipping and storage. Monsanto does not store, transport or sell the plastic container once it is filled with product without the outer cardboard packaging, and specific language in the STORAGE AND DISPOSAL section and other places on the label inform retailers and end-users to not remove the inner plastic container until it has been emptied and properly rinsed.]

# 4.1 Outermost Cardboard Packaging

[FRONT PANEL]

# [INSERT BRAND NAME] [Logo optional]

GROUP	9	HERBICIDE
-------	---	-----------

[Optional marketing claims and/or logos included on this Master Label may be added to this secondary packaging]

A broad-spectrum postemergence herbicide for weed control in many agricultural systems.

[Alternative product statement: Selective broad-spectrum weed control in Roundup Ready® crops]

[Alternative product statement: Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads]

[Alternative product statement for products that also contain aquatic, industrial, turf, ornamental, select crop and other terrestrial uses: A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, [Optional text, if applicable: select crop,] and other listed terrestrial weed control. (For a complete list of aquatic and terrestrial uses, see the Directions for Use section in the attached labeling [Optional text: booklet].)]

[Optional statement for limited-geography product distribution: This product is not registered in all states.] [Optional text: See attached labeling [Optional text: booklet] for more details.]

[Additional optional statements for limited-geography product distribution: For control of annual and perennial weeds in [list states and or county-level information as appropriate where product is registered and distributed]. [Optional text:\*County Level Distribution:] see inside attached labeling [Optional text: booklet] for details.] [Optional text: In [list states] this product is distributed in the counties listed below:] [list counties by state]

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

## **ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

<sup>\*</sup>Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

[Optional label text that will be updated at the time of printing, if necessary: This product is protected by U.S. Patent No.'s [List appropriate patents].]

[Optional label text, if applicable: Other Patents Pending.]

[Optional label text, if applicable: No license granted under any non-U.S. patent(s).]

[Option to insert reference to a Monsanto Patent Website: For a list of patents, if any, covering this product or its use, please go to www.monsantotechnology.com.]

EPA Reg. No. 524-343

EPA Est. [Insert appropriate EPA establishment number: 524-IA-1; 524-LA-1; or Other; or blank space]

[Alternative EPA establishment text: EPA Est. (L) 524-LA-1 or (M) 524-IA-1 Lot number prefix (L) or (M) indicate appropriate establishment number.] [This lot number relationship with the establishment number can be expanded or changed to include additional or add new producing sites as appropriate.]

Keep out of reach of children

# **CAUTION**

[Optional label text, if applicable: See back [Alternative text: side] panel for additional] [Optional text, as applicable: Precautions [and] First Aid]

See labeling booklet inside for Complete Directions for Use [Optional text: in English and Spanish].

[Alternative label text: See attached labeling for Complete Directions for Use [Optional text: in English and Spanish].

Read the entire label before using this product.

Use only according to label directions.

Read the LIMIT OF WARRANTY AND LIABILITY statement [Optional text, if applicable: on side panel] before buying or using. If terms are not acceptable, return at once unopened.

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

3 [or other appropriate measure] GALLONS [Alternative text: GAL]

[ADDITIONAL CONTENT THAT MAY APPEAR ON ANY PANEL OF THE OUTER PACKAGING]

#### PRECAUTIONARY STATEMENTS

#### **Hazards to Humans and Domestic Animals**

Keep out of reach of children

# **CAUTION**

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation 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)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks and shoes.

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

# **User Safety Recommendations**

Users should:

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

#### **Environmental Hazards**

[For labels without aquatic uses: 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 and rinsate.]

[Alternative text for labels with aquatic uses only: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

[Alternative text for labels with both aquatic and terrestrial uses: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean highwater mark [Optional text, if applicable: , except when applying this product by air over the forest canopy]. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

#### **Physical or Chemical Hazards**

Spray solutions of this product may be mixed, stored and applied using 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 and cause 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 may only be used in accordance with the Directions for Use on this label or in separately published supplemental labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# **Agricultural Use Requirements**

Use this product 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.

See [Optional text: attached] labeling [Optional text, if applicable: booklet inside] for complete Agricultural and Non-Agricultural Use Requirements of the Worker Protection Standard and Directions for Use. Read the entire label before using this product.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and shake container or recirculate contents of larger containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Keep container closed to prevent spills and contamination. Do not store this container unprotected from the weather, especially precipitation, for extended periods of time. DO NOT REMOVE INNER PLASTIC CONTAINER FROM THE PACKAGE UNTIL IT HAS BEEN EMPTIED AND PROPERLY RINSED.

**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.

**CONTAINER HANDLING AND DISPOSAL:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse (or equivalent) the inner plastic container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Fill the inner plastic container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix-tank, or store rinsate for later use or disposal. Continue to 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 mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle through the bottom of the container, ensuring that you puncture the inner plastic container, and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

After rinsing, open the outer cardboard packaging and remove the inner plastic container.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. Recycle the cardboard separately. [Alternative container disposal statement: Then offer the outer cardboard packaging and inner plastic container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

If recycling is not available, dispose of each component in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed inner plastic container and disposing both the outer cardboard packaging and inner plastic container in a sanitary landfill.

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

[Amplify, Bullet, Certainty, Degree, Degree Xtra, Harness, INTRRO, Lariat, Micro-Tech, Monsanto and Vine Design, Outrider, Roundup, Roundup Custom and Design, [ALTERNATE BRAND NAME and DESIGN], Roundup Original, Roundup Ready, Roundup Ready 2 Technology, Roundup Ready 2 Yield, Roundup Ready PLUS and Design, Rowel, TripleFLEX, TRUEBLUE ADVANTAGE PROVEN RELIABLE SUPPORTED and Design, TruFlex and Warrant] are [registered] trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

[Top panel label statement:] DO NOT REMOVE THE INNER PLASTIC CONTAINER FROM THIS PACKAGE UNTIL IT HAS BEEN EMPTIED AND PROPERLY RINSED.

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

©[Year]

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

[Insert LOT number or LOT number will be printed directly on the container]

## 4.2 Inner Plastic Container Label

# [INSERT BRAND NAME] [Logo optional]

## **ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

Keep out of reach of children

# CAUTION

EPA Reg. No. 524-343

UNLESS THIS PLASTIC CONTAINER IS EMPTY AND HAS BEEN PROPERLY RINSED FOR DISPOSAL, IT IS NOT TO BE REMOVED FROM ITS OUTER CARDBOARD PACKAGING. FOR MORE INFORMATION CALL 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] OR COLLECT AT 314-694-4000.

# 4.3 Optional Container Label Statements for the Smart-Pak Composite Packaging Only

Protect this package from precipitation until emptied and properly rinsed.

Use the cap to cut the foil seal.

Invert cap over foil seal and rotate clockwise and counterclockwise to cut the foil seal. Remove foil seal.

Easy to Handle

Uses less plastic than ordinary [Alternative text: typical] jugs

Produces less plastic waste than ordinary [Alternative text: typical] jugs

Compact Design

Space Efficient

Stackable

Easy to Use

Easy to Pour

Easy to Recycle

## 5.0 TRANSPORT VEHICLE LABEL (AS DEFINED AT 40 CFR § 156.3)

# [INSERT BRAND NAME] [Logo optional]

GROUP	9	HERBICIDE
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[Optional marketing claims and/or logos included on this Master Label may be added to this label]

A broad-spectrum postemergence herbicide for weed control in many agricultural systems.

[Alternative product statement: Selective broad-spectrum weed control in Roundup Ready® crops]

[Alternative product statement: Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads]

[Alternative product statement for products that also contain aquatic, industrial, turf, ornamental, select crop and other terrestrial uses: A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, [Optional text, if applicable: select crop,] and other listed terrestrial weed control.]

[Optional statement for limited-geography product distribution: This product is not registered in all states.]

# FOR BULK PESTICIDE TRANSPORT ONLY

#### ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

[Optional label text that will be updated at the time of printing, if applicable: This product is protected by U.S. Patent No.'s [List appropriate patents].]

[Optional label text, if applicable: Other Patents Pending.]

[Optional label text, if applicable: No license granted under any non-U.S. patent(s).]

[Option to insert reference to a Monsanto Patent Website: For a list of patents, if any, covering this product or its use, please go to www.monsantotechnology.com.]

EPA Reg. No. 524-343

EPA Est. [Insert appropriate EPA establishment number: 524-IA-1; 524-LA-1; or Other; or blank space]

[Alternative EPA establishment text: EPA Est. (L) 524-LA-1 or (M) 524-IA-1 Lot number prefix (L) or (M) indicate appropriate establishment number.] [This lot number relationship with the establishment number can be expanded or changed to include additional or add new producing sites as appropriate]

#### PRECAUTIONARY STATEMENTS

# **Hazards to Humans and Domestic Animals**

Keep out of reach of children

# CAUTION

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation 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)

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks and shoes.

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

# **User Safety Recommendations**

Users should:

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

#### **Environmental Hazards**

[For labels without aquatic uses: 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 and rinsate.]

[Alternative text for labels with aquatic uses only: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

[Alternative text for labels with both aquatic and terrestrial uses: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean highwater mark [Optional text, if applicable: , except when applying this product by air over the forest canopy]. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

# **Physical or Chemical Hazards**

Spray solutions of this product may be mixed, stored and applied using 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 and cause 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 regulation.

## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 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.

#### FOR BULK PESTICIDE TRANSPORT ONLY

#### 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 ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or shake container, or recirculate contents of larger containers, to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, 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:** Emptied transport vehicle 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 container from service.

# THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

[Amplify, Bullet, Certainty, Degree, Degree Xtra, Harness, INTRRO, Lariat, Micro-Tech, Monsanto and Vine Design, Outrider, Roundup, Roundup Custom and Design, [ALTERNATE BRAND NAME and DESIGN], Roundup Original, Roundup Ready, Roundup Ready 2 Technology, Roundup Ready 2 Yield, Roundup Ready PLUS and Design, Rowel, TripleFLEX, TRUEBLUE ADVANTAGE PROVEN RELIABLE SUPPORTED and Design, TruFlex and Warrant] are [registered] trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

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

©[Year]

NET [Insert net contents or blank space] GAL [or other unit of measure, as appropriate] [Alternative label statement: NET CONTENTS:] [Insert net contents or blank space] GAL

[Alternative label statement: NET CONTENTS: See Bill of Lading]

LOT [Insert Lot number or blank space]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see the Bill of Lading]

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

# II. DIRECTIONS FOR USE WITH FOOD AND FEED CROPS

# [INSERT BRAND NAME] [Logo]

Herbicide

Complete Directions for Use

GROUP	9	HERBICIDE
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EPA Reg. No. 524-343

A broad-spectrum postemergence herbicide for weed control in many agricultural systems.

[Alternative product statement: Selective broad-spectrum weed control in Roundup Ready® crops]

[Alternative product statement: Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads]

[Optional statement for limited-geography product distribution: This product is not registered in all states.]

[Alternative or additional statements for limited-geography product distribution: For control of annual and perennial weeds in [list states and or county-level information, as appropriate, where product is registered and distributed]. [Optional text: \*County Distribution:] [Optional text: see inside for details.] [Optional text: In [list states] this product is distributed in the counties listed below:] [list counties by states]

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

[Optional label text: TrueBlue Advantage – Proven – Reliable – Supported® (Logo)]

[Optional label text: Roundup® – Powerful Performance at a Practical Price]

[Optional label text: Roundup Ready PLUS™ – Weed Management Solutions (Logo)]

[Optional label text: Herbicide for Roundup Ready® Crops]

[Optional label text: A member of the Roundup® Family of [Optional text: Agricultural] Herbicides by Monsanto]

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 directions.

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

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

[Optional text: THIS IS AN END-USE PRODUCT. MONSANTO COMPANY DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.]

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# II. DIRECTIONS FOR USE WITH FOOD AND FEED CROPS

OTHER	{ IN(:;K⊢	DIENIS	
	osate, N	EDIENT: -(phosphonomethyl)glycine, in the form of its isopropylamine salt EDIENTS:	
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\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt, per liter or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

[Optional label text that will be updated at the time of printing, if applicable: This product is protected by U.S. Patent No.'s [List appropriate patents].]

[Optional label text, if applicable: Other Patents Pending.]

[Optional label text, if applicable: No license granted under any non-U.S. patent(s).]

[Option to insert reference to a Monsanto Patent Website: For a list of patents, if any, covering this product or its use, please go to www.monsantotechnology.com.]

#### 2.0 IMPORTANT PHONE NUMBERS

- 1. FOR PRODUCT INFORMATION OR ASSISTANCE USING THIS PRODUCT, CALL TOLL-FREE, (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

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)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks and shoes.

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

## **User Safety Recommendations:**

Users should:

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

## 3.3 Physical or Chemical Hazards

Spray solutions of this product may be mixed, stored and applied using 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 and cause 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 may only be used in accordance with the Directions for Use on this label or on separately published supplemental labeling. Supplemental labeling for this product can be 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 regulation.

## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 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 and disposal.

**PESTICIDE STORAGE**: STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or shake container or recirculate contents of larger containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination. See individual container label for additional storage conditions, if any.

**PESTICIDE DISPOSAL**: To avoid wastes, use all material in the 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.

**CONTAINER HANDLING AND DISPOSAL**: [Optional label text, if applicable: See container label for container handling and disposal instructions and refilling limitations.] [Alternative optional text for ECL label: See base label attached to the container for container handling and disposal instructions and refilling limitations.]

[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 the container.

[Alternative container statement: Nonrefillable container. Do not reuse the 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 the container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

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

Nonrefillable container. Do not reuse the 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.

[Alternative container statement: Nonrefillable container. Do not reuse or refill the container.]

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

Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to 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 mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

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

Nonrefillable container. Do not reuse or refill the container.

[Alternative container statement: Nonrefillable container. Do not reuse the 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) the container promptly after emptying.

[Optional label text: For containers not equipped with pumping systems,] Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank. Fill the container ¼ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth for 30 seconds, ensuring at least one complete revolution. 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 mix-tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

[Alternative or additional triple rinsing instructions for large containers equipped with pumping systems: [Optional label text: For large containers equipped with pumping systems,] Triple rinse as follows: Empty

the remaining contents into application equipment or 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. Repeat this procedure two more times.]

Pressure rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to the container, if available. If no recycling information is available on the container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location].

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling – Call 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)]

[Optional additional container disposal statement: IBC EMPTY? – FREE CALL – 1-888-SCHUETZ (1-888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statement: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

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

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

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

To clean the container before final disposal, empty the remaining contents from the container into application equipment or 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.

[Optional container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to this container, if available. If no recycling information is available on this container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location.]

[Optional additional container disposal statement: IBC EMPTY? – FREE CALL – 1-888-SCHUETZ (1-888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statement: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

[Optional container disposal statement: To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling – Call 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1/800-768-6387)]

#### 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 and perennial weeds, woody brush, trees and vines. It is formulated as a water-soluble liquid that, unless otherwise directed, requires dilution with water or other carrier and the addition of a surfactant that is labeled for use with herbicides before application according to label directions using standard and specialized pesticide application equipment.

**Mechanism 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:** This product binds tightly to soil particles and does not provide residual weed control. Weeds must be emerged at the time of application to be controlled by foliar application of this product. Weed seeds in the soil will not be affected by this product and will continue to germinate. Unattached plant rhizomes and rootstocks beneath the soil surface will also not be affected by this product.

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

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Enhanced control of most perennial weeds is obtained when this product is applied at late growth stages approaching maturity. Refer to the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" for more information on the control of specific weeds.

**Cultural Considerations:** Reduced weed control could result when this product is applied to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to re-grow prior to application. Always use a 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. Reduced weed control could also result when this product is applied to weeds that show signs of disease or insect damage, are covered with dust, or are surviving under poor growing conditions.

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

**Rainfastness:** Rainfall within 4 hours of application could wash this product off of the foliage and a second application might then be needed for acceptable weed control. Refer to specific use sections of this label for additional information on minimum intervals required before re-application of this product.

**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 after application. Extremely cool or cloudy weather following application could slow activity of this product and delay development of visual symptoms.

**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 allowable 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 in 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.

Unless otherwise specified on this label, the combined total application of this product on a site must not exceed 6 quarts (6 pounds of glyphosate acid) per acre per year. For applications on non-crop sites, or on tree, vine, or shrub crop production sites, the combined total application of this product must not exceed 8 quarts (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 mechanism of action classification system of the Weed Science Society of America. Any weed population can contain plants that are naturally resistant to Group 9 herbicides. Weeds resistant to Group 9 herbicides can be effectively managed by using another herbicide from a different Group (either alone or in a mixture according to label directions), by using other cultural or mechanical methods of weed control, or a combination of the two. Consult your local company representative, state cooperative extension agent, professional consultant or other qualified authority to determine appropriate actions for controlling specific resistant weeds.

# 6.1 Weed Management Practices

Resistant populations arise when rare individual plants are uncontrolled by a normal dose of a given herbicide under normal environmental conditions. In the absence of other control measures, these individuals survive, produce seed, and eventually become the dominant biotype in the field through continuous selection. The best means of reducing this selection is to use diverse weed control practices such as multiple herbicides with different mechanisms of action, and often in combination with various mechanical and cultural practices.

To minimize the occurrence of herbicide-resistant biotypes, including those resistant to glyphosate, implement the following weed management practice options that are practical to your situation. These management practices are applicable to reduce the spread of confirmed resistant biotypes (managing existing resistant biotypes) and to reduce the potential for selecting for resistance in new species (proactive resistance management).

- Use a diversified approach toward weed management focused on preventing weed seed production and reducing the number of weed seeds in the soil.
- Plant crops into fields that are as weed-free as possible and then keep them as weed-free as possible.
- Plant crop seed that is as weed-free as possible.
- Scout fields routinely, before and after herbicide application.
- Use multiple herbicide mechanisms of action that are effective against the most troublesome weeds in your field and against those with known resistance.
- Apply herbicides at application rates listed on the label when weeds are within the size range indicated on the label.
- Emphasize cultural practices that suppress weeds by using crop competitiveness.
- Use mechanical and biological weed management practices, where appropriate.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules.
- Manage weed seed at harvest and after harvest to prevent a buildup of the weed seedbank.

## 6.2 Management of Glyphosate-Resistant Biotypes

Appropriate testing is needed to determine if a weed is resistant to glyphosate. Call 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] or contact your Monsanto Company representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet at www.weedresistancemanagement.com or www.weedscience.org.

Glyphosate-resistant weeds can be controlled or managed by applying this product in combination with residual preemergence herbicides and/or other postemergence herbicides labeled for control of the targeted weed in the crop being grown. For more information, see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

Since the occurrence of resistant weeds is difficult to detect prior to use, Monsanto Company accepts no liability for any losses that result from the failure of this product to control resistant weeds.

## 7.0 MIXING

Spray solutions of this product may be mixed, stored and applied using 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.

A 50-mesh nozzle screen or line strainer on the spray equipment is adequate.

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

## 7.1 Mixing with Water

PERFORMANCE OF THIS PRODUCT 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.

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. Foaming of the spray solution can occur during mixing. To prevent or minimize foaming, mix gently, terminate by-pass and return lines at the bottom of the tank and, if necessary, add an appropriate anti-foam or defoaming agent to the spray solution.

#### 7.2 Surfactant

Unless otherwised directed, this product requires the addition of 2 or more quarts of a nonionic surfactant that is labeled for use with herbicides per 100 gallons of spray solution (0.5% or more by volume). Unless otherwise directed, use a higher concentration of surfactant when any of the following conditions apply to the use of this product:

- Adding surfactants that contain less than 70 percent active ingredient
- Making a broadcast application using a high carrier volume or using handheld spray equipment
- Applying under adverse growing conditions or anytime weeds are under stress
- Applying as a tank-mix with other products
- Applying to hard-to-control weeds, woody brush, trees or vines

Read and follow all precautionary statements and directions for use on the surfactant label.

[Optional label text, if applicable: When applying this product [Optional label text, if applicable: preharvest to cotton or] [Optional label text, if applicable: postemergence (in–crop) over the top of Roundup Ready crops], do not exceed a surfactant concentration of 2 quarts per 100 gallons of spray solution. Surfactant concentrations exceeding two quarts per 100 gallons of spray solution could result in crop injury and reduced yield.]

All reference throughout this label to concentration of surfactant in the spray solution is on a percentageof-volume basis. Refer to the table below to achieve the appropriate concentration of surfactant in the spray solution.

	Amount of Surfactant to Achieve Indicated Concentration in Spray Solution					
Desired Volume	(percent by volume)					
of Spray Solution	0.5%	0.75%	1%	1.5%	4%	8%
1 gallon	2/3 fl oz	1 fl oz	1.3 fl oz	2 fl oz	5 fl oz	10 fl oz
25 gallons	16 fl oz	24 fl oz	1 qt	1.5 qts	4 qts	2 gals
100 gallons	2 qts	3 qts	1 gal	1.5 gals	4 gals	8 gals

2 tablespoons = 1 fluid ounce (fl oz)

## 7.3 Tank Mixtures

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control in the soil, a broader weed control spectrum or an alternate mechanism of action.

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 of 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 Company has not tested all tank-mix product formulations for compatibility, antagonism or reduction in product performance. To the extent consistent with applicable law, 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 on 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, pendimethalin or any other product or material, 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 intervals and any crop rotation restrictions. Use according to the most restrictive precautionary statements for each product in the tank mixture.

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

#### 7.4 Tank-Mixing Procedure

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

Mix only the quantity of spray solution that will be applied that day. Application of tank-mix solutions that are allowed to stand overnight could result in reduced weed control.

Pepare tank mixtures of this product as follows:

- 1. Place a 20- to 35-mesh screen or wetting basket over filling port of tank.
- 2. Through the screen, fill the spray tank one-half full with water and start gentle agitation.
- 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 spray 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 spray tank with water through the screen and add the required amount of this product near the end of the filling process.
- 8. Add nonionic surfactant to the spray tank before completing the filling process.
- 9. Add individual tank-mix components to the tank as follows: wettable powders; flowables; emulsifiable concentrates; drift reduction additives; water soluble liquids (this product); nonionic surfactants.

Maintain gentle agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, agitate thoroughly to resuspend the mixture before resuming application.

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

A 50-mesh nozzle screen or line strainer on the spray equipment is adequate.

# 7.5 Mixing Spray Solution Concentrations

All reference throughout this label to concentration of this product in a spray solution is on a percentageof-volume basis. Prepare the desired volume of spray solution at a given concentration by mixing the amount of this product indicated in the following table with water.

Desired Volume of	Amount of [INSERT BRAND NAME] to Achieve Indicated Concentration in Spray Solution (percent by volume)					า
Spray Solution	0.5%	0.75%	1%	1.5%	4%	8%
1 gallon	2/3 fl oz	1 fl oz	1.3 fl oz	2 fl oz	5 fl oz	10 fl oz
25 gallon	16 fl oz	24 fl oz	1 qt	1.5 qts	4 qts	2 gals
100 gallon	2 qts	3 qts	1 gal	1.5 gals	4 gals	8 gals

<sup>2</sup> tablespoons = 1 fluid ounce (fl oz)

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

#### 7.6 Ammonium Sulfate

Unless otherwise directed, the addition of 1 to 2 percent dry ammonium sulfate by weight (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.

When using ammonium sulfate, apply this product at rates directed on this label; lower application 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 the 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 follow 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

This product may be applied using the following 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

**Handheld Sprayers**—backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers\*, lances and other handheld 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 applicator, sponge bar, spray bottle

Injection Systems—aerial or ground injection sprayers

**Controlled Droplet Applicator (CDA)**—handheld 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 ACCURATELY DELIVERING DESIRED VOLUMES.

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

#### 8.1 Spray Drift Management

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

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

AVOID DRIFT. USE EXTREME CARE TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHEN APPLYING THIS PRODUCT.

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

The likelihood of injury occurring as the result of spray drift while applying 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 generation of fine particles (mist) that are likely to drift.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFERS MUST BE MAINTAINED.

AVOID APPLYING THIS PRODUCT AT EXCESSIVE SPEED OR SPRAYER PRESSURE.

## 8.2 Aerial Application Equipment

Unless otherwise prohibited, all applications of this product 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 or on separate supplemental labeling published for this product.

DO NOT APPLY THIS PRODUCT USING AERIAL APPLICATION EQUIPMENT EXCEPT UNDER CONDITIONS SPECIFIED ON THIS LABEL OR ON SEPARATELY PUBLISHED SUPPLEMENTAL LABELING FOR THIS PRODUCT.

FOR SPECIFIC USE INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS RELATED TO THE AERIAL APPLICATION OF THIS PRODUCT IN ARKANSAS AND CALIFORNIA, OR SPECIFIC COUNTIES THEREIN, REFER TO THE LIMITATIONS ON AERIAL APPLICATION IN THAT STATE OR COUNTY PRESENTED IN THIS SECTION.

Unless otherwise directed, the maximum single application rate of this product is 48 fluid ounces per acre when using aerial application equipment. Apply this product at the appropriate rate in 3 to 15 gallons of water per acre unless otherwise directed on this label or on separate supplemental labeling for this

product. Refer to the individual use sections of this label for application rates, spray volumes and additional directions for use.

Drift control reduction additives may be used.

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. The maintenance of an organic coating (paint) that meets aerospace specification MIL-C-38413 can help prevent corrosion.

#### **AERIAL SPRAY DRIFT MANAGEMENT**

The following drift management requirements must be followed to minimize off-target drift movement during aerial application. [Optional label text, if applicable: These requirements do not apply to forestry applications.]

- 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 backwards, parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they must be followed.

#### 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 application is made improperly or under unfavorable environmental conditions, such as in windy, high temperature with low humidty, and/or inversion conditions as described below.

# **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:** Operate at a spray pressure towards the lower end of the range 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 provides 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 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 upwind 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 at wind speeds of between 2 and 10 miles per hour. However, many factors, including droplet size and equipment type, determine drift potential at any given wind 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 must be familiar with local wind patterns and how they affect drift.

# **Temperature and Humidity**

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

# **Temperature Inversion**

Do not apply this product during a temperature inversion as drift potential is high under these conditions. Temperature inversions restrict vertical air mixing, which causes small droplets to remain suspended 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.

## State Specific Limitations on Aerial Application

## LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY

DO NOT apply this product using aerial application equipment in residential areas.

AVOID DRIFT – DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT OF THIS PRODUCT ONTO ANY VEGETATION TO WHICH APPLICATION WAS NOT INTENDED CAN CAUSE DAMAGE. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, USE PROPER AERIAL APPLICATION EQUIPMENT FITTED WITH APPROPRIATE NOZZLES AND MAINTAIN ADEQUATE BUFFERS.

Follow the directions below when making an aerial application near non-target crops, desirable annual vegetation or desirable perennial vegetation after bud break and before total leaf drop.

- 1. Do not apply this product within 100 feet of all desirable vegetation or non-target crops.
- 2. If winds are blowing up to 5 miles per hour TOWARD desirable vegetation or non-target crops, do not apply this product within 500 feet of the desirable vegetation or crops.
- 3. If winds are blowing between 5 and 10 miles per hour TOWARD desirable vegetation or non-target crops, a buffer zone greater than 500 feet might be needed to protect the desirable vegetation or crops.
- 4. Do not apply this product using aerial application equipment when winds are blowing in excess of 10 miles per hour.
- 5. Do not apply this product using aerial application equipment when inversion conditions exist.

When tank-mixing this product with 2,4-D, only 2,4-D amine formulations may be applied in California using aerial application equipment. Tank mixtures of this product with 2,4-D amine formulations may be applied by air in California on fallow fields and in 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.

# ADDITIONAL LIMITATIONS ON AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY

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

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

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 Directions**

Written directions MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. These written directions 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.

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

For additional information on the proper aerial application of this product in Fresno County, call (800) 332-3111.

#### LIMITATIONS ON AERIAL APPLICATION IN ARKANSAS ONLY

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 this product at the appropriate rate 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 winged aircraft. Avoid the use of nozzles with wide-angle discharge.

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

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

Follow the directions below when an aerial application is made near non-target crops or other desirable vegetation:

- 1. Do not apply this product within 100 feet of non-target crops or any desirable vegetation.
- 2. If winds up to 5 miles per hour are blowing TOWARD non-target crops or desirable vegetation, do not apply this product within 500 feet upwind of the crop or desirable vegetation.
- 3. If winds between 5 and 10 miles per hour are blowing TOWARD non-target crops or desirable vegetation, a buffer zone in excess of 500 feet might be needed to protect the crop or desireable vegetation.

## 8.3 Ground Application Equipment

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

## 8.4 Handheld Sprayers

When using a handheld sprayer, apply spray solutions of this product uniformly and completely to the foliage of target weeds using a coarse droplet spectrum and a spray-to-wet technique; do not spray to the point of runoff. For the appropriate concentration of this product in the spray solution and timing of application to control specific weeds, woody brush, trees and vines, refer to the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label.

Spot treatment application of this product for weed control in a cropping system using a handheld sprayer may be made only when specifically directed on this label or on separate supplemental labeling for this product. The crop sprayed with this product will be killed along with the weeds. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

## 8.5 Selective Application Equipment

Selective application equipment allows this product to be applied to weeds growing near the crop or other desirable vegetation without killing the desireable vegetation. Selective application equipment must be capable of preventing all contact of the herbicide solution with the crop or other desirable vegetation and operated without spray mist escape, leakage or dripping of the herbicide solution.

AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION. Contact of this product with desirable vegetation could result in unwanted plant damage or destruction. To the extent consistent with applicable law, such damage shall be the sole responsibility of the applicator.

## **Shielded and Hooded Sprayers**

A shielded sprayer directs the herbicide solution to the target weeds while protecting the crop or other desirable vegetation from coming into contact with the herbicide spray with an impervious material or shield. Use nozzles that provide uniform coverage within the application area. Keep shields properly adjusted to protect desirable vegetation.

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 or other desirable vegetation from the spray solution.

This product may be diluted in water with an appropriate surfactant and applied using a shielded or hooded sprayer to weeds listed on this label growing on any non-crop site described on this label and in between rows of plants (row middles) in any cropping system listed on this label.

Properly adjust the hood to protect desirable vegetation. Ensure that the hood is capable of completely enclosing the spray pattern. If necessary when applying around crops grown on raised beds, extend the front and rear flaps of the hooded sprayer downward to reach the ground in deep furrows.

A hooded sprayer 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 or other desirable vegetation. 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 runoff down the inside of the hood, 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.

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

- Operate the sprayer with the hood on the ground or skimming across the ground surface.
- Leave at least an 8-inch untreated strip over the drill row. (For example, if the crop row width is 38 inches, use a sprayer hood with a maximum width of 30 inches.)
- Operate at a ground speed of no greater than 5 miles per hour to minimize bouncing of the hooded sprayer.
- Apply when wind speed is 10 miles per hour of less.
- Use low-drift nozzles that provide uniform coverage within the application area.

Injury to a crop or other desirable vegetation can occur when application is made to foliage of weeds that come into direct contact with the crop or desirable vegetation. Do not apply this product when leaves of desirable vegetation are growing in direct contact with weeds. 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 or solutions of this product directly onto the target weed or cut stump. Any handheld device that is capable of physically wiping this product or solutions of this product directly onto the target weed or cut stump, such as a paint brush, may be used.

A mechanical wiper applicator, such as a rope wick or sponge bar that can be driven through a field over the top of a crop or other desirable vegetation to control weeds that are taller than the desirable vegetation, must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation.

Wiper applicators may be used over the top of food or feed crops ONLY if specifically permitted for use over that crop by this label or by separately published supplemental labeling for this product.

When using a mechanical wiper applicator, adjust the height of the applicator to ensure adequate contact with weeds and so that the wiper contact point is a minimum of 2 inches above the desirable vegetation. Enhanced 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 that do not come into contact with the herbicide solution will not be affected. Poor contact can occur when weeds are growing in dense clumps, when operating in an area of severe weed infestation, or when weed height varies dramatically. In these situations, more than one application of this product might be necessary.

Operate wiper applicators at a ground speed of no greater than 5 miles per hour. Performance in areas of heavy weed infestation can be improved by reducing speed, which will provide more time for resaturation of the wiper with the herbicide solution and more contact time of the wiper with the weed. Enhanced results with a wiper applicator can be obtained when two applications are made traveling in opposite directions in the field.

Keep wiper surfaces clean.

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. 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 apply this product using a wiper applicator when weeds are wet.

Add a nonionic surfactant to a concentration of 10 percent by volume of the total applicator solution (one gallon of surfactant for every 10 gallons of solution) for use in a wiper applicator. See the "MIXING" section of this label for more information on the use of surfactants.

For Rope Wick and Sponge Bar Applicators—use solutions ranging from 33 to 75 percent of this product in water

For Panel Applicators—use solutions ranging from 33 to 90 percent of this product in water.

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.

# 8.5 Injection Systems

This product may be used in aerial or ground injection spray systems as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this concentrated product with the undiluted concentrate of other products for use in injection systems, unless otherwise directed. A non-ionic surfactant concentration of 0.5% or more in the spray stream is required for use of this product in injection systems.

## 8.6 Controlled Droplet Applicator (CDA)

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

A controlled droplet applicator produces a spray pattern that is not easily visible. Use extreme care to avoid spray or drift from contacting the foliage or any other green tissue of desirable vegetation, as plant damage or destruction could result.

#### 9.0 ANNUAL AND PERENNIAL CROPS

THIS SECTION PROVIDES DIRECTIONS FOR USE OF THIS PRODUCT THAT APPLY TO ALL CROPS LISTED IN THE FOLLOWING SECTIONS. 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 directions for use 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: This product may be applied 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 <a href="not">not</a> listed on this label, application must be made a minimum of 30 days prior to planting. Unless otherwise directed, apply this product according to the rates listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label. Application rates specified on this label for hard-to-control 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, TREES AND VINES RATE SECTION" of this label. Additional information on hard-to-control weeds can be found on Fact Sheets published for this product.

Application of this product may be repeated as needed up to a maximum of 6 quarts per acre per year. Refer to specific use sections of this label for additional information on minimum intervals required before re-application of this product.

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. Crop injury is possible with these methods of application. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information regarding the potential for crop injury using selective application equipment.

Spot treatment application of this product for weed control in a cropping system may be made only when specifically directed in the individual crop sections that follow.

Unless otherwise prohibited, all applications of this product 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 information on aerial application and procedures for avoiding spray drift that could cause injury to any vegetation not intended for application. Use of appropriate buffers 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 mechanism 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 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 Company has not tested all product formulations for compatibility or performance in a tank-mix with this product. To the extent consistent with applicable law, 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 label 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: 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 could result. Transplant seedlings coming into contact with weeds that are still wet with a spray solution of this product could result in significant crop injury. When making preemergence applications, application must be made before crop emergence to avoid severe crop injury. Broadcast application of this product 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 crop injury. In crops where spot treatment is allowed, the crop sprayed with this product will be killed along with the weeds. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

Preharvest application on crops grown for seed could result in a reduction in germination or vigor. To the extent consistent with applicable law, buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on any crop grown for seed.

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 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.

Unless otherwise directed on this label, application using selective equipment, including wiper applicators and hooded sprayers, must be made a minimum of 14 days prior to harvest. In crops where spot treatment is allowed, do not apply this product to more than 10 percent of the total field to be harvested, unless otherwise directed. Post-harvest and fallow application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

Do not harvest or feed vegetation from an area for 8 weeks following broadcast postemergence application, unless otherwise directed.

When applying this product as a tank mixture with one or more products, refer to each individual tank-mix product label for restrictions and apply the mixture in accordance with the most restrictive statements for each product in the tank.

## 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); Control of Barnyardgrass in Rice Using Renovation Treatment (California only); 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 the 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 48 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. Avoid spraying during conditions of low humidity, as reduced control of red rice could result.

RESTRICTIONS: Do not apply this product to rice fields or levees when fields contain floodwater. Do not flood fields for a minimum of 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 before heading in small grains.

RESTRICTIONS: Do not apply this product to more than 10 percent of the total field area to be harvested.

# Control of Barnyardgrass in Rice Using Renovation Treatment (California Only)

## THIS APPLICATION FOR USE IN CALIFORNIA ONLY

USE INSTRUCTIONS: This product may be applied as a renovation treatment in rice crops to control barnyardgrass (*Echinochola crus-galli*) infestations using ground broadcast application equipment or a handheld sprayer. Renovation is defined as an herbicide application that will result in crop and weed destruction in an entire field or contiguous area within a field.

RESTRICTIONS: Rice straw and stubble from the application area, including a 25-foot buffer zone on all sides, may not be used for animal bedding, grazing, or any other feed purpose. DO NOT make this application using aerial application equipment.

## 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 tall weeds. 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.

RESTRICTIONS: Allow a minimum of 35 days between application and harvest. Do not use roller applicator.

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

USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of feed barley or wheat. For feed barley, apply after the hard-dough stage when grain moisture is 20 percent or less. For wheat, apply after the hard-dough stage when grain moisture is 30 percent 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.

RESTRICTIONS: Do not apply more than 24 fluid ounces of this product per acre for preharvest application. Allow a minimum of 7 days between application and harvest or grazing.

#### **Post-Harvest**

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

RESTRICTIONS: Allow a minimum of 7 days between application and harvest or feeding of vegetation within the application area. Application must be made a minimum of 30 days prior to the planting of 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 directions for use with field corn hybrids with Roundup Ready 2 Technology (including Roundup Ready corn 2 and field corn products displaying the Roundup Ready 2 Technology logo), or with sweet corn hybrids with Roundup Ready 2 Technology (including Roundup Ready Sweet Corn and sweet corn products displaying the Roundup Ready 2 Technology logo), see the "ROUNDUP READY CROPS" section of this label. [Alternative text: For directions for use with field corn hybrids with Roundup Ready 2 Technology (including Roundup Ready Corn 2 and field corn products displaying the Roundup Ready 2 Technology logo), or with Roundup Ready sweet corn, 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-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 product used is labeled for application prior to planting or the emergence of the type of corn crop being grown. 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.

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

AAtrex 4L; AAtrex Nine-O; Acuron; Acuron Flexi; Aim EC; Aim EW; Atrazine 4L; Atrazine 90 DF; Axiom DF; Balance Flexx; Banvel; Banvel 480; Bicep II MAGNUM; Bicep II MAGNUM FC; Bicep Lite II MAGNUM; Callisto; Cinch; Cinch ATZ; Cinch ATZ Lite; Clarity; Corvus; Degree Xtra; Distinct; Dual MAGNUM; Dual II MAGNUM; FulTime; FulTime NXT; Guardsman MAX; Harness; Harness Xtra; Harness Xtra 5.6L; Hornet WDG Broadleaf Blend; Keystone; Keystone LA; Keystone LA NXT; Keystone NXT; Leadoff; Linex 4L; Lorox DF; Marksman; Me-Too-Lachlor II; Outlook; Prowl 3.3 EC; Prowl H2O; Python WDG; Resicore; Resolve DF; Resolve Q; Resolve SG; Resource; Shark EW; Shark H2O; Sharpen Powered by Kixor; Simazine 4L Flowable; Simazine 90 DF; Simazine 90 WDG; Stalwart; Stalwart C; Stalwart Xtra; Stinger; Surpass EC; Surpass NXT; TopNotch; TripleFLEX II

For hard-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 24 fluid ounces of this product per acre in these tank mixtures. For other annual weeds listed on this label, apply 18 to 24 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 fluid ounces per acre when weeds are over 6 inches tall. When using a nitrogen solution as the carrier, higher application rates might be needed for acceptable weed control.

RESTRICTIONS: Application of 2,4-D or dicamba must be made a minimum of 7 days prior to planting corn.

In Southern states, do not mix this product in nitrogen solutions for application to hard-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 for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: Corn must be at least 12 inches tall, measured without extending leaves. Do not apply more than 24 fluid ounces of this product per acre for each hooded sprayer application and no more than 72 fluid ounces per acre per year total.

#### **Spot Treatment**

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

RESTRICTIONS: Do not apply this product to more than 10 percent of the total field area to be harvested.

#### **Preharvest**

USE INSTRUCTIONS: Up to 72 fluid ounces of this product per acre may be applied using ground application equipment, or up to 48 fluid ounces per acre using aerial application equipment, when kernel fill is complete and the corn is physiologically mature (black layer formed) and grain moisture is 35 percent or less.

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

## Post-Harvest

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

RESTRICTIONS: Allow a minimum of 7 days between application and harvest or feeding of vegetation within the application area. Application of this product must be made a minimum of 30 days prior to planting any crop not listed on this label.

#### 9.3 Cotton

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

For directions for use 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 or Clarity and applied prior to planting only. This product may also be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product 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.

acetochlor; clomazone; diuron; flumioxazin; fluometuron; fomesafen; metolachlor; s-metolachlor; norflurazon; pendimethalin; prometyrn; pyrithiobac-sodium, saflufenacil

Caparol 4L; Command 3ME; Cotoran 4L; Cotton Pro; Dawn; Direx 4L; Dual MAGNUM; Dual II MAGNUM; Karmex DF; Prowl 3.3 EC; Prowl H2O; Reflex; Rowel; Sharpen Powered by Kixor; Stalwart; Staple LX; Valor SX; Warrant; Warrant Ultra

# Selective Equipment

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

RESTRICTIONS: Allow a minimum of 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.

RESTRICTIONS: Do not apply this product to more than 10 percent of the total field area to be harvested.

#### **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 18 to 48 fluid ounces of this product per acre. Make preharvest application only after sufficient bolls have developed to produce the desired yield. Application 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 enhance cotton leaf-drop. Read and follow label directions for all products used in the tank mixture.

PRECAUTIONS: Do not exceed a surfactant concentration of 0.5% by volume (2 quarts per 100 gallons of spray solution) when making a preharvest application to cotton. Surfactant concentration greater than 0.5% could result in crop injury and reduced yield.

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

#### 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. Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

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 48 fluid ounces of this product per acre may be made onto fallow fields where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

PRECAUTIONS Some crop injury could occur if dicamba is applied within 45 days of planting.

#### **Preplant Fallow Beds**

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

TANK MIXTURES: Apply 9 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Goal 2XL 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 12 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Goal 2XL to control the following weeds with the maximum height or length indicated: 6 inches—common cheeseweed, groundsel, marestail (*Conyza canadensis*), 12 inches—chickweed, London rocket, shepherd's-purse.

## Aid-to-Tillage

USE INSTRUCTIONS: This product may be used in conjunction with tillage practices in fallow systems, or prior to the planting of crops listed on this label (preplant), to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 10 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 application and before re-growth occurs. Allow a minimum of 1 day after application before tillage.

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

## 9.5 Grain Sorghum (Milo)

TYPES OF APPLICATIONS: 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 a 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 product 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.

acetochlor; atrazine; metolachlor; s-metolachlor; saflufenacil

Bicep II MAGNUM; Bicep II MAGNUM FC; Bicep Lite II MAGNUM; Degree Xtra; Dual MAGNUM; Dual II MAGNUM; Sharpen Powered by Kixor; Warrant

For hard-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 24 fluid ounces of this product per acre in a tank mixture with one or more of the products listed here.

For control of other annual weeds listed on this label, apply 18 to 24 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 fluid ounces per acre when weeds are over 6 inches tall. When using a nitrogen solution as the carrier, the application rate might need to be increased to acheive acceptable weed control.

# **Spot Treatment, Wiper Applicator**

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.

RESTRICTIONS: For spot treatment, do not apply this product to more than 10 percent of the total field area to be harvested. When applied using a wiper applicator, allow a minimum of 40 days between application and harvest. Do not use a roller applicator. Do not feed or graze grain sorghum fodder or ensile vegetation within the application area.

## **Hooded Sprayer**

USE INSTRUCTIONS: This product may be applied using a hooded sprayer for weed control in between rows of grain sorghum. Make application 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 with any vegetation to which application is not intended could cause damage. 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.

RESTRICTIONS: Grain sorghum must be at least 12 inches tall, measured without extending leaves. Do not graze or feed grain sorghum forage or fodder following application of this product using a hooded sprayer. Do not apply more than 24 fluid ounces of this product per acre per hooded sprayer application and no more than 72 fluid ounces per acre per year total.

#### **Preharvest**

USE INSTRUCTIONS: Up to 48 fluid ounces of this product per acre may be applied after sorghum grain has reached 30 percent moisture or less. As with other herbicides that cause sudden plant death, avoid preharvest application of this product on grain sorghum (milo) infected with charcoal rot as lodging can occur.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest of grain sorghum. 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 application rates might be needed to control large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for post-harvest application in grain sorghum (milo). Read and follow label directions for all products in the tank mixture.

This product may be applied to grain sorghum stubble following harvest to control or suppress re-growth. Apply 24 fluid ounces of this product per acre for control or 20 fluid ounces per acre for suppression.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest or feeding of vegetation within the application area. Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

#### 9.6 Herbs and Spices

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: 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 of 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. Application may be repeated on 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.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest. For spot treatment application, do not apply this product to more than 10 percent of the total field area to be harvested

## 9.7 Oilseed Crops

LABELED CROPS: Borage; Buffalo gourd; Calendula; Canola; Castor oil plant; Chinese tallowtree; Crambe; Cuphea; Echium; Euphorbia; Evening primrose; Flax; Gold of pleasure; Hare's ear mustard; Jojoba; Lesquerella; Meadowfoam; Milkweed; Mustard; Niger seed; Oil radish; Poppy; Rape; Rose hip; Safflower; Sesame; Stokes aster; Sunflower; Sweet rocket; Tallowwood; Tea oil plant; Veronia

For directions for use with Roundup Ready canola and TruFlex™ Roundup Ready<sup>®</sup> canola, see the "ROUNDUP READY CROPS" section of this label.

TYPES OF APPLICATION: Those listed in Section 9.0, plus Preharvest (except buffalo gourd)

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product for use in safflower, sunflower and all other oilseed crops listed in this section, if a preharvest application is to be made. If a preharvest application is NOT to be made, the maximum application rate of this product for all preemergence, selective equipment and post-harvest applications in any oilseed crop listed in this section is limited only by the maximum of 6 quarts per acre per year. If a preharvest application is intended to be made to any crop listed in this section, except buffalo gourd, the maximum combined total of all preemergence and selective equipment applications is limited as indicated in the following table. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

Maximum Application Rates if a Preharvest Application is Made				
Safflower				
Combined total for all Preemergence and Selective Equipment applications	72 fluid ounces per acre			
Preharvest application 72 fluid ounces per acre				
Sunflower				
Combined total for all Preemergence and Selective Equipment applications	24 fluid ounces per acre			
Preharvest application 24 fluid ounces per acre				
All Other Oilseed Crops Listed (Except Buffalo Gourd)				
Combined total for all Preemergence and Selective Equipment applications	48 fluid ounces per acre			
Preharvest application 36 fluid ounces p				

RESTRICTIONS: Do not exceed a total application rate of 6 quarts of this product per acre per year. Preharvest application is not permitted on buffalo gourd.

## Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting oilseed crops listed in this section, but must be applied prior to crop emergence. Observe the maximum application rates listed at the beginning of this section.

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

RESTRICTIONS: See the use instructions at the beginning of this section for important information on maximum application rates for preemergence and selective equipment applications of this product.

#### **Selective Equipment**

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

## **Preharvest (Except Buffalo Gourd)**

USE INSTRUCTIONS: This product provides weed control and serves as a harvest aid when applied to a physiologically mature oilseed crop listed in this section. For safflower, up to 72 fluid ounces of this product may be applied per acre when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches. For sunflower, up to 24 fluid ounces of this product per acre may be applied when the backsides of sunflower heads are yellow and bracts are turning brown

and seed moisture content is less than 35 percent. For all other oilseed crops listed in this section (except buffalo gourd), up to 36 fluid ounces of this product per acre may be applied prior to harvest.

RESTRICTIONS: DO NOT MAKE A PREHARVEST APPLICATION if you have exceeded the maximum application rates for the combined total of all preemergence and selective equipment applications listed in the table at the beginning of this section. Make only 1 preharvest application of this product and allow a minimum of 7 days between application and harvest or feeding to livestock. Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label. Preharvest application is not allowed on buffalo gourd or on Roundup Ready<sup>®</sup> or TruFlex™ RoundupReady canola.

#### **Post-Harvest**

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

RESTRICTIONS: Do not exceed a total application rate of 6 quarts of this product per acre per year. Allow a minimum of 7 days between application of this product and harvest or feeding of vegetation within the application area. Application must be made a minimum or 30 days prior to the planting of 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

For directions for use on 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 also be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product 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.

acetochlor; carfentrazone-ethyl; chlorimuron ethyl; clethodim; clomazone; cloransulam-methyl; dimethenamid; dimethenamid-p; fenoxaprop-p-ethyl; fluazifop-p-butyl; flufenacet; flumetsulam; flumiclorac pentyl ester; flumioxazin; fluthiacet-methyl; fomesafen; imazaquin; imazethapyr; lactofen; linuron; metolachlor; s-metolachlor; metribuzin; pendimethalin; pyroxasulfone; quizalofop-p-ethyl; saflufenacil; sulfentrazone; tribenuron methyl; trifluralin

Aim EC; Aim EW; Assure II; Authority Assist; Authority Elite; Authority First DF; Authority MAXX; Authority MTZ DF; Authority XL; Axiom DF; Blanket 4F; Boundary 6.5 EC; Cadet, Canopy; Canopy Blend; Canopy EX; Classic; Cobra; Command 3ME; Dawn; Dual MAGNUM; Dual II MAGNUM; Fierce; Fierce XLT; FirstRate; Flexstar; Fusion; Linex 4L; Lorox DF; Me-Too-Lachlor; Optill Powered by Kixor; Outlook; Phoenix; Prowl 3.3 EC; Prowl H2O; Pursuit; Python WDG; Reflex; Resource; Rhythm; Rowel; Rowel FX; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Sharpen Powered by Kixor; Spartan 4F; Treflan 4L; Treflan 4 EC; TriCor 4F; TriCor DF; Valor SX; Valor XLT; Warrant; Warrant Ultra; Zidua

For hard-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 24 fluid ounces of this product per acre in a tank mixture with one of the products listed. For other annual weeds listed on this label, apply 18 to 24 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 fluid ounces when weeds are over 6 inches tall.

## **Spot Treatment**

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

RESTRICTIONS: Do not apply this product to more than 10 percent of the total field area to be harvested.

## **Selective Equipment**

USE INSTRUCTIONS: This product may be applied in soybean using a shielded sprayer, 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.

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

#### **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. Take care to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: Do not apply more than 4 quarts of this product per acre for preharvest application using ground application equipment or more than 48 fluid ounces per acre using aerial application equipment. Allow a minimum of 7 days between application and harvest of soybean. If the preharvest application rate is greater than 24 fluid ounces per acre, do not graze or harvest hay or fodder within the application area for livestock feed within 25 days of application. If the application rate is 24 fluid ounces per acre or less, the grazing restriction is reduced to 14 days after application.

## 9.9 Sugarcane

TYPES OF APPLICATION: Those listed in Section 9.0, plus Spot Treatment [Alternative text: Chemical Fallow; Preplant; At-Planting; Peemergence; Hooded Sprayer in Row Middles; Shielded Sprayer in Row Middles; Wiper Applicator in Row Middles; Spot Treatment; Plant Growth Regulator; Post-Harvest]

## 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.

RESTRICTIONS: Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation [Optional text, if this use included on label for aquatic use: unless the surfactant added to the spray solution is labeled for herbicide use and approved for aquatic application].

# **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 handheld sprayer and a spray-to-wet technique. Enhanced results can be obtained on volunteer or diseased sugarcane when application is made when there are at least 7 new leaves. Avoid contact of this herbicide with healthy sugarcane plants as severe damage or destruction could result.

RESTRICTIONS: Do not feed or graze treated sugarcane foliage within the application area.

# **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: Do not allow weeds within the application area to come into contact with the crop.

#### **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 ration cane by applying 3 to 3.75 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow a minimum of 7 days after application before tillage. Aerial application of up to 72 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 or dicamba may be used. Ensure that the product used is labeled for this application in sugarcane. Read and follow label directions for all products in the tank mixture.

## 9.9.1 Sugarcane Ripening [Alternative title: Plant Growth Regulation]

USE INSTRUCTIONS: This product may be used as a foliar-applied plant growth regulator to hasten ripening and extend the period of high sucrose level in both low- and high-tonnage sugarcane. Most of the sucrose increase is concentrated in the top nodes of the cane stalk. To maximize sugar recovery where topping is practiced at harvest, top at the base of the fourth leaf. Consult your state sugarcane authority or local Monsanto Company representative regarding the degree of sucrose response that can be anticipated prior to application of this product.

As a result of leaf desiccation, improved trash burn can be expected.

Apply this product at the following rates and timing according to the State in which the sugarcane is grown. Use a higher application rate within the given range when applying to sugarcane under adverse ripening conditions or to less responsive varieties.

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

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

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

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

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

PRECAUTIONS: Application of this product can 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 the effectiveness of this product.

Application to sugarcane grown for seed could result in a reduction in germination or vigor. To the extent consistent with applicable law, 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.

RESTRICTIONS: Do not feed or graze sugarcane forage following application. Do not plant subsequent crops within 30 days after application of this product 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

THIS SECTION PROVIDES DIRECTIONS FOR USE THAT APPLY TO ALL VEGETABLE CROPS LISTED IN THE FOLLOWING SECTIONS. SEE THE INDIVIDUAL CROP SECTIONS FOR SPECIFIC DIRECTIONS FOR USE, 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 only); Wiper Applicator (carrot, rutabaga and sweet potato only); Post-harvest

PRECAUTIONS: This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Remove residual product from the plastic with a single 0.5-inch application of water, either by natural rainfall or by irrigation, prior to planting. 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 this herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from the plastic mulch), or fruit of crops, as severe crop injury or destruction could result. Transplanted seedlings coming into contact with freshly sprayed weeds could result in significant crop injury.

Preemergence application must be made before crop emerges from the soil 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 spray, and wiper applications in row middles prior to vine development, otherwise severe crop injury or destruction could result.

RESTRICTIONS: Unless otherwise directed, application using selective equipment, including wiper applicators and hooded sprayers, must be made a minimum of 14 days prior to harvest. Post-harvest and fallow applications must be made a minimum of 30 days prior to the planting of 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 lon); Broccoli raab (rapini); Brussels sprouts; Cabbage; Chinese cabbage (bok choy); Chinese cabbage (napa); Chinese mustard cabbage (gai choy); Cauliflower; Cavalo broccoli; Collards; Kale; Kohlrabi; Mizuna; Mustard greens; Mustard spinach; Rape greens

## 9.10.2 Bulb Vegetables

LABELED CROPS: All cultivars, varieties and/or hybrids of Chive (including Chinese); Daylily; Elegans hosta; Fritillaria; Garlic (including great-headed, serpent); Kurrat; Leek (including lady's, wild); Onion (including Beltsville bunching, bulb, Chinese, fresh, green, macrostem, pearl, potato, tree, Welsh); Shallot

# 9.10.3 Cucurbit Vegetables and Fruits

LABELED CROPS: Chayote; 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

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 a minum of 3 days between application and planting.

# 9.10.4 Leafy Vegetables

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, upland); Dandelion; Dock (sorrel); Dokudami; Endive (escarole); Florence fennel; Gow kee; Lettuce (head, leaf); Orach, Parsley; Purslane (garden and winter); Radicchio (red chicory); Rhubarb; Spinach; New Zealand spinach; Vine spinach; Swiss chard; Watercress (upland); Water spinach

RESTRICTIONS: For watercress, allow a minimum of 3 days between application and seeding, and do not apply this product during the period between seeding and emergence.

# 9.10.5 Fruiting Vegetables

LABELED CROPS: All cultivars, varieties and/or hybrids of Eggplant (including African, pea, scarlet); Cocona; Garden huckleberry; Goji berry; Groundcherry (*Physalis* spp.); Martinynia, Naranjilla; Okra; Pepino; Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); Roselle; Sunberry; Tomatillo; Tomato

RESTRICTIONS: Allow a minimum of 3 days between application and planting. For tomato and tomatillo, do not apply this product using a hooded or shielded sprayer 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, 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 varieties only); Preharvest (dry varieties only)

## **Spot Treatment (Dry Varieties 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 any dry legume variety listed in this section, except cowpeas of field (feed) peas. Apply up to 24 fluid ounces of this product per acre in dry beans, or up to 72 fluid ounces per acre in dry peas, lentils and chickpeas, in 10 to 20 gallons of water using ground application equipment, or apply a 2-percent solution in a handheld sprayer. For enhanced results, apply at or beyond the bud stage of growth.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest. Only one spot treatment application may be made per year. Do not combine spot treatment with a preharvest broadcast application on the same crop area. Allow a minimum of 30 days between application and the planting of any crop not listed on this label. Do not feed vines and hay from the application area to livestock. Do not apply this product as a spot treatment in cowpeas or field (feed) peas, since these are considered to be grown only as livestock feed.

## **Preharvest (Dry Varieties Only)**

USE INSTRUCTIONS: This product may be applied over the top of any dry legume variety listed in this section prior to harvest, except cowpeas or field (feed) peas. Apply up to 24 fluid ounces of this product per acre in dry beans, or up to 72 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).

RESTRICTIONS: Allow a minimum of 7 days between application and 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. Allow a minimum of 30 days between application and the planting of any crop not listed on this label. Do not feed vines and hay from the application area to livestock. Do not make a preharvest application of this product in cowpeas or field (feed) peas, since these are considered to be grown only 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

TYPES OF APPLICATION: Those listed in Section 9.0, plus Directed Application (non-bearing ginseng only); Wiper applicator (carrot, rutabaga, sweet potato only)

# **Directed Application in Ginseng (Non-Bearing Only)**

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

PRECAUTIONS: Control the application so as to not 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.

RESTRICTIONS: Application must be made a minimum of one year prior to ginseng harvest.

# Wiper Applicator (Carrot, Rutabaga and Sweet Potato Only)

USE INSTRUCTIONS: A 33-percent solution of this product by volume in water may be applied using a wiper applicator over the top of carrot, rutabaga and sweet potato for the control of tall weeds. Add a nonionic surfactant to the application solution at a concentration of 10 percent by volume (10 gallons of surfactant per 100 gallons of application solution). See additional use instructions for wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: For carrot, a maximum of two wiper or sponge bar applications may be made a minimum of 60 days prior to harvest following the first application and 7 days prior to harvest following the second application or if only one wiper application is made over the top of the carrot crop. For

rutabaga, allow a minimum of 14 days between application and harvest. For sweet potato, a maximum of five wiper or sponge bar applications may be made with a minimum of 14 days between applications and a minimum of 7 days prior to harvest

## 9.11 Miscellaneous Crops

LABELED CROPS: Aloe vera; Asparagus; Bamboo shoots; Globe artichoke; Okra; Peanut; Pineapple; Sugarbeet

TYPES OF APPLICATION: Those listed in Section 9.0, plus Spot Treatment (asparagus)

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

PRECAUTIONS: Preemergence application must be made before the crop emerges from the soil 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, apply this product in row middles using a hooded sprayer, shielded sprayer or wiper applicator prior to vine development, otherwise severe crop injury or destruction could result.

## **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: 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 with a single 0.5-inch application of water, either by natural rainfall or irrigation, prior to planting. Ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes.

RESTRICTIONS: Allow a minimum of 21 days between residue removal and transplanting. Do not apply this product within 7 days prior to the emergence of the first asparagus spears. Do not feed or graze pineapple forage from within the application area.

## **Spot Treatment (Asparagus)**

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

RESTRICTIONS: Do not apply this product to more than 10 percent of the total field area to be harvested. Do not harvest asparagus within 5 days of a spot treatment application.

## Post-Harvest in 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: Direct contact of the spray with the asparagus could result in serious crop injury.

#### 10.0 TREE, VINE AND SHRUB CROPS

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

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

USE INSTRUCTIONS: Unless specifically prohibited in the individual crop sections that follow, this product may be applied using a boom sprayer, controlled droplet applicator (CDA), shielded sprayer, wiper applicator, handheld or backpack sprayer, lance or orchard gun, in middles (between rows of trees, vines or bushes) and strips (within rows of trees, vines or bushes), for weed control or perennial grass suppression in established tree fruit and nut groves, orchards and vineyards. It may also be used for site preparation prior to planting or transplanting these crops.

Apply 12 fluid ounces to 4 quarts of this product per acre as directed in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. Use a higher application rate within a given range when weeds are stressed, growing in dense populations or greater than 12 inches tall. Application may be repeated as needed up to a maximum of 8 quarts of this product per acre per year. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

PRECAUTIONS: 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 desirable 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.

RESTRICTIONS: Allow a minimum of 3 days between application of this product and transplanting.

## Middles (between rows)

USE INSTRUCTIONS: This product will control or suppress annual and perennial weeds and ground covers growing between rows of tree, vine and shrub 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 with Goal 2XL may be applied for annual weed control between rows (middles) of a variety of tree, vine and shrub crops when weeds are stressed or growing in dense populations. Application of 12 to 24 fluid ounces of this product per acre plus an appropriate rate of Goal 2XL 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-mix will also control common cheeseweed (malva) or hairy fleabane with a maximum height or length of 3 inches.

This product may also be applied to row middles in tank mixtures with the following products.

2,4-D; bromacil; clethodim; diuron; fluazifop-P-butyl; flumioxazin; glufosinate-ammonium; indaziflam; napropamide; norflurazon; oryzalin; oxyfluorfen; pendimethalin; penoxsulam; pyraflufen ethyl; rimsulfuron; saflufenacil; sethoxydim; simazine; thiazopyr

Alion; Chateau Herbicide SW; Devrinol 2-XT; Devrinol 50-DF; Devrinol 50-DF Ornamental; Devrinol DF-XT; Devrinol DF-XT Ornamental; Direx 4L; Dri-Clean; Fusilade II Turf & Ornamental; Fusilade DX; Goal 2XL; GoalTender; Karmex DF; Matrix FNV; Matrix SG; Orchard Master Broadleaf; Orchard Master CA; Pindar GT; Poast; Poast Plus; Prowl 3.3 EC; Prowl H2O; Princep 4L; Princep Caliber 90; Princep Liquid; Rely 280; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Simazine 4L; Simazine 4L Flowable; Simazine 90DF; Simazine 90 WDG; Sim-Trol 4L; Sim-Trol DF; Solicam DF; Surflan AS Agricultural; Surflan AS Specialty; Surflan Flex; Surflan Flex T&O; Surflan XL 2G; Treevix Powered by Kixor; Venue; Visor Broadcrop

Ensure that the product used is labeled for application within the crop being grown. Read and follow label directions for all products in the tank mixture.

#### Strips (within rows)

TANK MIXTURES: This product may be applied within rows of tree, vine and shrub crops in tank mixtures with the following products.

2,4-D; bromacil; clethodim; diuron; fluazifop-P-butyl; flumioxazin; glufosinate-ammonium; indaziflam; napropamide; norflurazon; oryzalin; oxyfluorfen; pendimethalin; penoxsulam; pyraflufen ethyl; rimsulfuron; saflufenacil; sethoxydim; simazine; thiazopyr

Alion; Chateau Herbicide SW; Devrinol 2-XT; Devrinol 50-DF; Devrinol 50-DF Ornamental; Devrinol DF-XT; Devrinol DF-XT Ornamental; Direx 4L; Dri-Clean; Fusilade II Turf & Ornamental Fusilade DX; Goal 2XL; GoalTender; Karmex DF; Matrix FNV; Matrix SG; Orchard Master Broadleaf; Orchard Master CA; Pindar GT; Poast; Poast Plus; Prowl 3.3 EC; Prowl H2O; Princep 4L; Princep Caliber 90; Princep Liquid; Rely 280; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Simazine 4L; Simazine 4L Flowable; Simazine 90DF; Simazine 90 WDG; Sim-Trol 4L; Sim-Trol DF; Solicam DF; Surflan AS Agricultural; Surflan AS Specialty; Surflan Flex; Surflan Flex T&O; Surflan XL 2G; Treevix Powered by Kixor; Venue; Visor Broadcrop

Ensure that the product used is labeled for application within the crop being grown. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: Do not apply these tank mixtures in Puerto Rico.

#### **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, vine and shrub crops.

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

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

For enhanced 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 4.5 fluid ounces of this product in 10 to 25 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 suppression 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 two applications per year.

For burndown of bermudagrass, apply 24 to 48 fluid ounces of this product in 3 to 20 gallons of water per acre. Make this application only if a reduction of the bermudagrass stand can be tolerated. When

burndown is required prior to harvest, make the application a minimum of 21 days prior to harvest to allow sufficient time for burndown to occur.

For suppression of bermudagrass, apply 4.5 to 12 fluid ounces of this product per acre east of the Rocky Mountains and 12 fluid ounces 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 4.5 to 7.5 fluid ounces of this product per acre under shaded conditions or where a lesser degree of suppression is desired.

# **Cut Stump Application**

Application of this product to a freshly cut tree stump may be made during site preparation or site renovation to control regrowth and re-sprouting of stumps of many tree species, some of which are listed below.

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

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

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

USE INSTRUCTIONS: Cut the tree close to the soil surface and immediately apply a 50- to 100-percent (undiluted) 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 enhanced results, cut the tree during period of active growth and full leaf expansion and apply this product.

PRECAUTIONS: DO NOT MAKE A CUT STUMP APPLICATION WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MIGHT BE GRAFTED TO THE ROOTS OF THE CUT STUMP, AS INJURY 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 adjacent stems or trees when this product is applied to one or more trees sharing a common root system.

#### 10.1 Berry and Small Fruit Crops

LABELED CROPS: All cultivars, varieties and/or hybrids of Amur River grape; Aronia berry; Bayberry; Bearberry; Bilberry; Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretia berry, mammoth blackberry, marionberry, mora, mures de ronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora); Blueberry (highbush, lowbush); Buffaloberry; Che; Chilean guava; Chokecherry; Cloudberry; Cranberry (including highbush); Currant (black, Buffalo, red, native); Elderberry; European barberry; Gooseberry; Grape; Honeysuckle (edible); Huckleberry; Jostaberry; Juneberry (Saskatoon berry); Kiwifruit (fuzzy, hardy); Ligonberry; Maypop; Mountain pepper berries; Mulberry; Muntries; Partridgeberry; Phalsa; Pincherry; Raspberry (black, red, wild); Riberry; Salal; Schisandra berry; Sea buckthorn; Serviceberry; Strawberry

TYPES OF APPLICATION: Those listed in Section 10.0

PRECAUTIONS: To avoid damage, spray solutions of this product must not be allowed to contact desirable vegetation, including green shoots, canes, or foliage. 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. USE THIS PRODUCT WITH EXTREME CARE AROUND RASPBERRY, AS SERIOUS CROP DAMAGE CAN OCCUR IF ANY PART OF THE VINE COMES INTO CONTACT WITH THIS PRODUCT. To the extent consistent with applicable law, grower assumes all responsibility for crop losses resulting from misapplication of this product.

RESTRICTIONS: Allow a minimum of 3 days between application of this product and transplanting. Allow a minimum of 30 days between application and harvest in cranberries or the planting of any crop not listed on this label. Allow a minimum of 14 days between application and harvest for all other berry and small fruit crops listed here. Do not apply this product using selective equipment in kiwifruit.

# **Spot Treatment**

USE INSTRUCTIONS: Spot treatment application using a handheld sprayer or other appropriate application equipment listed in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label may be used to control weeds in berry and small fruit crops listed in this section.

For control of weeds growing in dry ditches (interior and perimeter) of cranberry production areas, drop water level to remove standing water in ditches and apply a 0.75- to 1.5-percent solution of this product with a handheld sprayer to adequately wet the vegetation only; do not spray to the point of runoff. To achieve maximum weed control in dry ditches, apply this product within 1 day after water drawdown to ensure application to actively growing weeds and allow a minimum of 2 days after application before reintroduction of water.

RESTRICTIONS: Allow a minimum of 30 days between spot treatment application and harvest of cranberries. Do not apply directly to water. Use nozzles that produce medium- to large-sized droplets to minimize spray drift and avoid crop injury.

#### **Post-Harvest Application in Cranberry Production**

USE INSTRUCTIONS: This product may be applied for weed control after the harvest of berries and small fruit listed in this section. In cranberry bogs, apply this product after cranberry vines are dormant (after they have turned red) using a handheld sprayer, wiper applicator or any other appropriate application equipment listed in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. With a handheld sprayer, apply a 0.5- to 0.75-percent solution of this product to adequately wet the vegetation only; do not spray to the point of runoff. With a handheld boom sprayer, apply 1.5 to 3.75 quarts of this product per acre.

PRECAUTIONS: Even though vines appear dormant, contact of this product with desirable vegetation could result in damage or severe plant injury. Cranberry plants that are directly sprayed could be killed.

RESTRICTIONS: Apply this product only after cranberries have been harvested. Do not apply to more than 10 percent of the total bog. Allow a minimum of 6 months between post-harvest application and the next harvest of cranberries. Do not apply using aerial application equipment. Do not apply directly to water.

# 10.2 Citrus Fruit Crops

LABELED CROPS: All cultivars, varieties and/or hybrids of Calamondin; Chironja; Citron; Citrus Hybrids; Grapefruit (including Japanese summer); Kumquat; Lemon; Lime (including Australian desert lime, Australian finger lime, Australian round lime, Brown river finger lime, Mount white, New Guinea wild, Russell river, sweet, and Tahiti); Mandarin (including Mediterranean, Satsuma); Orange (all); Pummelo; Tangelo (ugli); Tangerine (Mandarin); Tangor; Uniq Fruit (ugli)

TYPES OF APPLICATION: Those listed in Section 10.0 [Alternative text: Preplant (site preparation); Broadcast Spray, Selective Equipment (shielded sprayer, wiper applicator), Directed Spray or Spot Treatment in Middles (between rows of trees) or Strips (within rows of trees); Perennial Grass Suppression; Cut Stump Application]

USE INSTRUCTIONS: The following use instructions pertain to application 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.

To control goatweed, apply 48 to 72 fluid ounces of this product in 20 to 30 gallons of water per acre when plants are actively growing. Apply 48 fluid ounces per acre when plants are less than 8 inches tall and 72 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-mix with Krovar I or Karmex could improve weed control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

	Level of Perennial Weed Control at  Various Application Rates  (amount of this product per acre)			
Weed Species	24 fl oz	48 fl oz	2.25 quarts	3.75 quarts
Bermudagrass	В	_	PC	С
Guinea grass				
Texas and Florida Ridge	В	С	С	С
Florida Flatwoods	_	В	С	С
Para grass	В	С	С	С
Torpedograss	S	_	PC	С

S = Suppression, PC = Partial Control, B = Burndown, C = Control

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

# 10.3 Pome Fruit Crops

LABELED CROPS: All cultivars, varieties and/or hybrids of Apple; Azarole; Crabapple, Loquat; Mayhaw; Medlar; Pear (including Asian pear); Quince (including Chinese and Japanese quince); Tejocote

TYPES OF APPLICATION: Those listed in Section 10.0

RESTRICTIONS: Allow a minimum of 1 day between application and harvest of pome fruit.

# 10.4 Stone Fruit Crops

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

TYPES OF APPLICATION: Those listed in Section 10.0

PRECAUTIONS: Avoid application near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for a minimum of 2 years. ENSURE THAT NO PART OF A PEACH TREE IS CONTACTED WITH OVERSPRAY OR DRIFT OF THIS PRODUCT.

RESTRICTIONS: Allow a minimum of 17 days between application and harvest of stone fruit. In olive groves, apply as a directed spray only. Remove suckers and low-hanging limbs a minimum of 10 days prior to application.

# 10.5 Tree Nut Crops

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

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

#### 10.6 Tropical and Subtropical Trees and Fruit Crops

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; Noni (Indian mulberry); Papaya; Pawpaw; Plantain; Persimmon; Pomegranate; Pulasan; Rambutan; Rose apple; Sapodilla; Sapote (black, mamey, white); Spanish lime; Soursop; Star apple; Sugar apple; Surinam cherry; Tamarind; Tea; Ti; Wax jambu

TYPES OF APPLICATION: Those listed in Section 10.0 and as a Bananacide (banana only)

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 all other tropical or subtropical tree fruit listed here. In coffee and banana, delay application a minimum of 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 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 to be controlled. 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.

No surfactant is required to be added to this product when injecting into banana plants.

RESTRICTIONS: Do not apply more than 0.5 fluid ounce (15 milliliters) of this product per mat (or unit). Do not harvest any fruit or plant material from treated mats (or units) following injection. Do not allow livestock to consume treated plant material. Following transplant of new banana plants into treated areas, allow plants to become established for a minimum of 3 months before applying this product for weed control.

#### 10.7 Vine Crops

LABELED CROPS: Hops; Passion fruit

TYPES OF APPLICATIONS: 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.

RESTRICTIONS: Allow a minimum of 14 days between application and harvest of these vine crops.

#### 10.8 Miscellaneous Tree Food Crops

LABELED CROPS: Cactus (all, including prickly pear, dragon fruit); Palm

TYPES OF APPLICATION: Those listed in Section 10.0

#### 10.9 Non-Food Tree Crops

LABELED CROPS: Pine; Poplar; Eucalyptus; Christmas Trees; all other non-food tree crops

TYPES OF APPLICATION: Those listed in Section 10.0

PRECAUTIONS: 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.

[Optional label statement: RESTRICTIONS: DO NOT apply this product as a broadcast application over the top of plantations or tree crops] [Optional text: , unless otherwise directed.].

#### **Site Preparation**

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

PRECAUTIONS: Protect non-target plants from being sprayed with this product during site preparation application.

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

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

#### 11.0 PASTURE GRASSES, FORAGE LEGUMES AND RANGELAND

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 listed. Application rates specified on this label for hard-to-control 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, TREES AND VINES RATE SECTION" of this label. Additional information on hard-to-control weeds can be found on Fact Sheets published for this product.

# 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 directions for use 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.

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 using 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.

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 a minimum of 3 days after application before grazing livestock or harvesting. Do not apply this product to more than 10 percent of the total field area at any one time.

#### **Weed Control in Dormant Alfalfa**

USE INSTRUCTIONS: This product will control or suppress many weeds, including quackgrass, downy brome and cheatgrass in dormant alfalfa. Apply 7 to 9 fluid ounces of this product per acre in the spring when alfalfa is dormant, after spring temperatures have warmed enough to encourage weed growth, but prior to initiation of trifoliate leaf expansion of the alfalfa crop. Application made after expansion of the first trifoliate leaf will cause growth reduction and reduced crop yield.

PRECAUTIONS: Improper application of this product to alfalfa can cause crop injury. Do not use this product on dormant alfalfa if a slight yield reduction in the first cutting cannot be tolerated. Slight discoloration of the alfalfa crop could occur, but will re-green and resume growth under moist soil conditions as effects of this product wear off.

RESTRICTIONS: Do not add ammonium sulfate to spray solutions of this product for application to dormant alfalfa. Do not make more than one application per year. Allow a minimum of 36 hours after application before grazing livestock or harvesting.

# 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 an established stand of any forage legume 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. Application for quackgrass control must be followed by deep tillage for complete control. If the crop is to be harvested or grazed by livestock, apply up to 48 fluid ounces of this product per acre in alfalfa and up to 36 fluid ounces per acre in all other legumes listed in this section. 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: This application can destroy an alfalfa stand and severely injure or destroy other legume crops listed, such as clover. Preharvest application on alfalfa grown for seed could result in a reduction in germination or vigor. To the extent consistent with applicable law, 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.

RESTRICTIONS: Make only one application to an existing crop stand per year. Remove domestic livestock before application. Foliage within the application area can be harvested and fed to livestock according to the application rates and intervals defined in the following table. If applying at a rate greater than those listed here, do not harvest foliage for livestock feed or allow livestock to graze within the application area.

Crop	Maximum Single Preharvest	Minimum Interval Between
Стор	Application Rate	Application and Harvest or

	(per acre)	Livestock Grazing
Alfalfa	48 fluid ounces	36 hours
All other legumes listed	36 fluid ounces	3 days

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

#### 11.2 Conservation Reserve Program (CRP)

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

# 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 application or spot treatment to dormant CRP grasses. For selective weed control using broadcast application equipment, apply 9 to 12 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: Some stunting of CRP perennial grasses will occur if broadcast application is made when plants are not dormant.

RESTRICTIONS: Do not apply more than 2.25 quarts of this product per acre per year onto CRP land. No waiting period is required between application and grazing or harvesting for feed.

# 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.

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

#### 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 Application; 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. This product may be used to destroy undesirable grass vegetation when production fields are converted to alternative species or crops. Do not disturb soil or underground plant parts before application and delay tillage or renovation techniques, including vertical mowing, coring and slicing, for a minimum of 7 days after application to allow for herbicide translocation into underground plant parts.

Apply before, during or after planting, or for renovation purposes. 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. For maximum control of existing vegetation, delay planting until determining if any re-growth of underground plant parts will occur. Where

repeat applications are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall application provides enhanced control. Broadcast application of this product may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates of up to 3.75 quarts per acre may be used to totally remove an established stand of hard-to-kill grass species.

RESTRICTIONS: If application rate is 2.25 quarts of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 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 area at any time; all other crops may be planted 30 days after application.

#### **Shielded Sprayer**

USE INSTRUCTIONS: Apply 24 to 72 fluid ounces of this product in 10 to 20 gallons of water per acre using a shielded sprayer to control weeds between grass seed rows. Uniform planting in straight rows will aid shielded sprayer application. Enhanced results can be 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: Contact of this product in any manner to any vegetation to which application is not intended could cause damage.

# 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: Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation could result in discoloration, stunting or destruction.

#### **Spot Treatment**

USE INSTRUCTIONS: Apply a 1-percent solution of this product using a handheld 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: This product will kill the desirable grasses along with the weeds. 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: Use low-pressure nozzles or drop nozzles designed to target the application over a narrow band. Set nozzle height to establish the desired row spacing and apply 12 to 24 fluid ounces of this product per acre. Enhanced results can be 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 in height.

PRECAUTIONS: Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction. To the extent consistent with applicable law, grower assumes all responsibility for crop losses resulting from misapplication of this product.

#### 11.4 Pastures

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

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 apllied to control perennial pasture species listed on this label prior to re-planting.

RESTRICTIONS: If application rates total 2.25 quarts of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 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 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. To achieve maximum performance, remove domestic livestock before application and wait a minimum of 7 days after application before grazing livestock or harvesting for feed. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: For spot treatment or use with a wiper applicator at rates of 2.25 quarts per acre or less, this product may be applied over the entire pasture or any portion of it. At rates above 2.25 quarts per acre, this product may be applied over no more than 10 percent of the total pasture at any one time. Application may be repeated on the same area at 30-day intervals.

# Postemergence Weed Control (Broadcast Application)

USE INSTRUCTIONS: This product may be applied in pastures to suppress competitive growth and seed production of annual weeds and other undesirable vegetation. For selective weed control using broadcast application equipment, apply 9 to 12 fluid ounces of this product per acre in early-spring before desirable perennial grasses break dormancy and initiate green growth. Late fall application may be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS: Some stunting of perennial grasses will occur if broadcast application is made when plants are not dormant. Higher application rates may be used for hard-to-control weeds; however, higher rates will cause stand reduction.

RESTRICTIONS: No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2.25 quarts of this product per acre per year onto pasture grasses, except for renovation use as described on this label. If replanting is needed due to severe stand reduction, wait a minimum of 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 rangeland. Slight discoloration of the desirable grasses could occur, but will re-green and resume growing under moist soil conditions as effects of this product wear off.

Preventing seed production is critical to the control of invasive annual grassy weeds on rangeland. Follow-up applications in sequential years can be used to eliminate most of the viable seeds. Delay grazing of the area after application of this product to allow desirable perennials to grow, flower and reseed the area.

Apply 9 to 12 fluid ounces of this product per acre to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass on rangeland. Apply when most mature brome plants are in early-flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur after spring rains further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Apply this product in the fall in areas where spring moisture is normally limited and fall germination allows for good weed growth amd weed seed depletion.

For control of medusahead, apply 12 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 slowly decaying culms. Allow new growth to occur before applying this product after a burn. Repeat applications in subsequent years are necessary to eliminate the seedbank before re-establishing desirable perennial grasses in medusahead-dominated rangeland.

RESTRICTIONS: Do not apply more than 2.25 quarts of this product per acre per year on rangeland. Do not add ammonium sulfate to the spray mixture when applying this product on rangeland grasses. No waiting period between application and feeding or livestock grazing is required.

#### 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 Company representative. Roundup Ready crops must be purchased from an authorized licensed seed supplier.

The directions for use 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 a specified Roundup Ready crop during the complete cropping season. DO NOT combine these directions for use with the directions for use with the same crops listed in the "ANNUAL AND PERENNIAL CROPS" and "PASTURE GRASSES, FORAGE LEGUMES AND RANGELAND" sections of this label, which are intended for use on crops that 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. [*This list will be updated at the time of printing, if necessary.*] A license to use Roundup Ready seed must be obtained prior to planting. Monsanto Company 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 over the top of Roundup Ready crops. 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.

**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.

<u>Ground broadcast application</u> – Apply this product in 5 to 20 gallons of spray solution per acre, unless otherwise directed. Select proper nozzles and spray pressure settings to avoid spraying a fine mist. For enhanced results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

<u>Aerial application</u> – Unless otherwise prohibited, all applications of this product described in this section 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 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 application. 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 Company has not tested this product with all tank-mix product formulations for compatibility, antagonism or performance. To the extent consistent with applicable law, 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 on separate supplemental labeling or Fact Sheets for this product. See the "MIXING" section of this label for more information on tank mixtures.

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 with this product.

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.

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 application to control existing weeds prior to crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morning glory, woolly cupgrass, shattercane, wild proso millet, burcumber, 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 a minimum of 10 days after a previous application of this product.

Application rates of this product specified on this label for hard-to-control 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 hard-to-control weeds can be found on Fact Sheets published for this product.

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. When applying this product as a tank mixture with one or more products, refer to each individual tank-mix product label for restrictions and apply the tank mixture in accordance with the most restrictive statements for each product in the tank.

#### 12.1 Roundup Ready Alfalfa

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

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

Maximum Application Rates		
Combined total per year for all applications, including Preplant during year of establishment	6 quarts per acre	
Preplant, At-planting and Preemergence single application	50 fluid ounces per acre	
Combined total per year for In-crop application on newly established and established stands	4.6 quarts per acre	

See the "ROUNDUP READY CROPS" section of this label for information 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 the 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 "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. This product will also suppress or control the parasitic weed dodder (*Cuscuta* spp.) in Roundup Ready alfalfa. More than one application might be necessary for complete control.

PRECAUTIONS: Freezing or near freezing conditions, or large temperature swings, within 5 days after application of this product to Roundup Ready alfalfa could result in a limited, temporary crop response.

**New Stand Establishment (Seeding Year)** – Due to the biology and breeding constraints of alfalfa, up to 10 percent of the seedlings will 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 24 fluid ounces of this product per acre at or before the 4-trifoliate 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		
From emergence up to 4 trifoliate leaves	24 to 48 fluid ounces per acre	
From 5 trifoliate leaves up to 5 days before first cutting	Up to 48 fluid ounces per acre	
After First Cutting		
In-crop application, per cutting, up to 5 days before cutting	Up to 48 fluid ounces per acre	

TANK MIXTURES: Up to 48 fluid ounces of this product per acre may be applied postemergence (in-crop) over the top of Roundup Ready alfalfa in the seeding year in a tank-mix with the following products after weeds have emerged, but before alfalfa growth or re-growth interferes with spray coverage of the target weeds. Ensure that the product used in the tank-mix is labeled for application postemergence (in-crop) to alfalfa. Read and follow label directions for all products in the tank mixture.

clethodim; imazamox; imazethapyr; sethoxydim; guizalofop-p-ethyl

Assure II; Poast; Poast Plus; Pursuit; Raptor; Select 2 EC; Select Max Herbicide with Inside Technology

[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).

ESTABLISHED STANDS (Non-seeding Year) Application Rates		
In-crop application, per cutting, up to 5 days before cutting	Up to 48 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 product 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 48 fluid ounces per acre in a tank mixture with the following herbicides.

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

Assure II; Poast; Poast Plus; Pursuit; Raptor; Select 2 EC; Select Max Herbicide with Inside Technology

[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.]

**Dormant alfalfa:** For control of emerged annual grasses and broadleaf weeds when alfalfa is dormant, this product may be applied at up to 48 fluid ounces per acre in a tank mixture with the following herbicides when daily temperatures remain above freezing.

imazamox; imazethapyr; metribuzin; pronamide; propyzamide Kerb 50-W; Kerb SC; Pursuit; Raptor; TriCor 4F; TriCor DF

[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.]

PRECAUTIONS: 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.

RESTRICTIONS: Do not exceed 48 fluid ounces per acre for any single in-crop application of this product. Sequential applications of this product must be a minimum of 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 4.6 quarts (148 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.

# 12.2 Roundup Ready Canola (Spring Varieties)

For directions for use of this product on TruFlex™ Roundup Ready® Canola, refer to that section of this label. DO NOT combine these directions for use on Roundup Ready canola with the directions for use on TruFlex Roundup Ready canola.

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); Postemergence (In-crop) in Hybrid Seed Production Only

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

Maximum Application Rates		
Total for all Preplant, At-Planting, Preemergence applications	48 fluid ounces per acre	
Total for all In-crop applications from emergence to 6-leaf stage	24 fluid ounces per acre	

See the "ROUNDUP READY CROPS" section of this label for information 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.

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 48 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, unless otherwise directed. Application made during bolting or flowering could result in crop injury and yield loss. To maximize yield potential, eliminate competing weeds early.

<u>Single Application</u> – Apply 12 to 18 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 12 fluid ounces per acre is applied after the 4-leaf stage.

<u>Sequential Application</u> – Apply 12 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 guackgrass, or whenever more than one application is needed for acceptable weed control.

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 24 fluid ounces of this product per acre. Allow a minimum of 60 days between application and canola harvest.

# Postemergence (In-crop) in Hybrid Seed Production Only

THIS POSTEMERGENCE APPLICATION IS FOR USE ONLY IN HYBRID CANOLA SEED PRODUCTION OF BOTH SPRING AND WINTER VARIETIES. DO NOT MAKE THIS APPLICATION ON CANOLA GROWN FOR FOOD OR FEED.

This product may be applied at a rate of between 14 and 27 fluid ounces per acre from emergence until pollination is complete or near completion for the control of non-glyphosate-tolerant canola pollen parental line(s) in hybrid canola seed production fields containing both Roundup Ready canola line(s) and non-glyphosate tolerant line(s). Sequential applications may be made for the control of non-glyphosate-tolerant pollen parental lines up to a maximum total application rate of 22 fluid ounces per acre.

RESTRICTIONS: Allow a minimum of 5 days between sequential applications. Maximum total application rate of this product for ALL postemergence (in-crop) applications in hybrid canola seed production fields, including application for weed control and control of non-glyphosate-tolerant canola, is 27 fluid ounces per acre.

# 12.3 Roundup Ready Canola (Winter Varieties)

For directions for use of this product on TruFlex Roundup Ready Canola, refer to that section of this label. DO NOT combine these directions for use on Roundup Ready canola with the directions for use on TruFlex Roundup Ready canola.

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 for all Preplant, At-Planting, Preemergence applications	48 fluid ounces per acre
Total for all In-crop applications from emergence to canopy closure or prior to bolting in the spring	48 fluid ounces per acre

See the "ROUNDUP READY CROPS" section of this label for information 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 need a sequential application of this product for control. Make the second application after some re-growth has occurred and a minimum of 60 days after the initial application of this product.

<u>Single Application</u> – Apply 18 to 24 fluid ounces of this product per acre in the fall when weeds are small and actively growing. Use a higher rate within this range when weed densities are high, when weeds have overwintered or when weeds become large and well established. Application of more than 18 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.

<u>Sequential Application</u> – Apply 12 to 24 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, a sequential application might be needed to reduce competition with the crop.

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 48 fluid ounces of this product per acre. Allow a minimum of 60 days between application and harvest of canola grain. No waiting period is required between application and open grazing of livestock.

# 12.4 TruFlex Roundup Ready Canola (Spring Varieties)

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

The directions for use provided in this section are specific to and may only be used with varieties designated as TruFlex Roundup Ready canola. Applications described on this label made over the top of canola that is not designated as <u>TruFlex</u> Roundup Ready canola could cause serious crop injury and reduced yields. DO NOT combine these directions-for-use with those in the "Roundup Ready Canola" section of this label or with any other directions-for-use on canola on labeling for this or any other glyphosate-containing product. Drift of this product from an application made to TruFlex Roundup Ready canola onto adjacent fields of Roundup Ready canola could cause extensive crop injury.

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop); Postemergence (In-crop) in Hybrid Seed Production Only

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

Maximum Application Rates		
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre	
Total for all In-crop applications from emergence through harvest	48 fluid ounces per acre	
Total for all In-crop applications from emergence through the 6-leaf stage	48 fluid ounces per acre	
Total for all In-crop applications from the 6-leaf stage through first-flower	24 fluid ounces per acre	

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

#### Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: Up to 3.75 quarts of this product may be applied before, during or after planting spring varieties of TruFlex Roundup Ready canola.

#### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied postemergence (in-crop) to spring varieties of TruFlex Roundup Ready canola from emergence through the first-flower stage of development. To maximize yield potential, eliminate competing weeds early.

For control of Canada thistle and morning glory, apply 48 fluid ounces of this product per acre no later than the 6-leaf stage of canola development. For control of wild buckwheat over 2 inches in size, make sequential applications of 24 fluid ounces followed by 24 fluid ounces of this product per acre. For control of other annual weeds, apply up to 48 fluid ounces of this product per acre no later than the 6-leaf stage or up to 24 fluid ounces after the 6-leaf stage through first-flower.

RESTRICTIONS: No more than two in-crop (over-the-top) broadcast applications may be made from crop emergence through the first-flower stage of canola development and the total in-crop application must not exceed 48 fluid ounces of this product per acre. No more than 24 fluid ounces of this product may be applied in-crop after the 6-leaf stage.

# Postemergence (In-crop) in Hybrid Seed Production Only

THIS POSTEMERGENCE APPLICATION IS FOR USE ONLY IN HYBRID CANOLA SEED PRODUCTION OF BOTH SPRING AND WINTER VARIETIES. DO NOT MAKE THIS APPLICATION ON CANOLA GROWN FOR FOOD OR FEED.

This product may be applied at a rate of between 14 and 27 fluid ounces per acre from emergence until pollination is complete or near completion 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). Sequential applications may be made for the control of non-glyphosate-tolerant pollen parental lines up to a maximum total application rate of 22 fluid ounces per acre.

RESTRICTIONS: Allow a minimum of 5 days between sequential applications. Maximum total application rate of this product for ALL postemergence (in-crop) applications in hybrid canola seed production fields, including application for weed control and control of non-glyphosate-tolerant canola, is 27 fluid ounces per acre.

#### 12.5 Field Corn Hybrids with Roundup Ready 2 Technology

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

The directions for use in this section apply only to use on FIELD CORN hybrids with Roundup Ready 2 Technology. For directions for use on SWEET CORN hybrids that contain Roundup Ready 2 Technology, see the "Sweet Corn Hybrids with Roundup Ready 2 Technology" section of this label. [Alternative text: For directions for use on Roundup Ready Sweet Corn, see the "Roundup Ready Sweet Corn" section of this label.]

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop); Spot Treatment; Preharvest; Post-Harvest; Postemergence (In-crop) for Tassel Control in Roundup Hybridization Systems Only

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

Maximum Application Rates		
Combined total per year for all applications	6 quarts per acre	
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre	
Maximum single In-crop application rate up to 48-inch corn	36 fluid ounces per acre	
Total for all In-crop applications from emergence through 48-inch corn	72 fluid ounces per acre	
Maximum Preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest*	24 fluid ounces per acre	

<sup>\*</sup>See RESTRICTIONS for Preharvest application.

See the "ROUNDUP READY CROPS" section of this label for information regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for information on Maximum Application Rates.

PRECAUTIONS: The use of the in-crop (over-the-top) rates described in this section on other than field 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 field corn hybrids with Roundup Ready 2 Technology.

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

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

AAtrex 4L; AAtrex Nine-O; Acuron; Acuron Flexi; Aim EC; Aim EW; Atrazine 4L; Atrazine 90 DF; Axiom DF; Balance Flexx; Banvel; Balance 480; Bicep II MAGNUM; Bicep II MAGNUM FC; Bicep Lite II MAGNUM; Callisto; Cinch; Cinch ATZ; Cinch ATZ Lite; Clarity; Corvus; Degree Xtra; Distinct; Dual MAGNUM; Dual II MAGNUM; FulTime; FulTime NXT; Guardsman MAX; Harness; Harness Xtra; Harness Xtra 5.6L; Hornet WDG Broadleaf Blend; Keystone; Keystone LA; Keystone LA NXT; Keystone NXT; Leadoff; Linex 4L; Lorox DF; Marksman; Me-Too-Lachlor II; Outlook; Prowl 3.3 EC; Prowl H2O; Python WDG; Resicore; Resolve DF; Resolve Q; Resolve SG; Resource; Shark EW; Shark H2O; Sharpen Powered by Kixor; Simazine 4L Flowable; Simazine 90DF; Simazine 90 WDG; Stalwart; Stalwart C; Stalwart Xtra; Stinger; Surpass EC, Surpass NXT; TopNotch; TripleFLEX II

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season. Application of 2,4-D or dicamba must be made a minimum of 7 days prior to planting corn.

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

#### Postemergence (in-crop)

USE INSTRUCTIONS: This product may be applied alone or in a tank-mix over the top of field corn hybrids with Roundup Ready 2 Technology from emergence through the V8 stage (8 leaves with collars), or until corn plant height reaches 30 inches (freestanding), whichever comes first, unless otherwise directed. Use drop nozzles for optimum spray coverage and weed control when corn plant height is 24 to 30 inches. When corn plants are 30 to 48 inches tall (freestanding), apply this product using **only** ground application equipment fitted with drop nozzles aligned to avoid spraying into the whorls of the corn plants. Maximum single in-crop application rate of this product up to 48-inch field corn is 36 fluid ounces per acre. Total in-crop application of this product from corn plant emergence through 48 inches in height must not exceed 72 fluid ounces per acre.

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 18 to 24 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 product used is labeled for application postemergence (in-crop) to field corn. Read and follow label directions for all products in the tank mixture.

2,4-D; acetochlor; atrazine; bicyclopyrone; carfentrazone-ethyl; clopyralid; dicamba; diflufenzopyr; flumetsulam; flumiclorac pentyl ester; foramsulfuron; halosulfuron-methyl; iodosulfuron-methylsodium; isoxaflutole; mesotrione; nicosulfuron; rimsulfuron; tembotrione; thiencarbazone-methyl; thifensulfuron methyl; topramezone

Acuron; Acuron Flexi; Aim EC; Aim EW; Banvel; Banvel 480; Basis; Basis Blend; Callisto; Callisto Xtra; Capreno; Clarity; Corvus; Degree Xtra; Distinct; Harness; Harness Xtra; Harness Xtra 5.6L; Hornet WDG Broadleaf Blend; Impact; Laudis; Marksman; Resicore; Resolve DF; Resolve C; Resolve SG; Resource; Shark EW; Shark H2O; Status; TripleFLEX II; Warrant

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.

# **Preharvest**

USE INSTRUCTIONS: Up to 24 fluid ounces of this product per acre may be applied for annual and perennial weed control prior to harvest when kernel fill is complete and the corn is physiologically mature (black layer formed) and grain moisture is 35 percent or less.

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 48 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 needed for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for post-harvest application in field corn. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest or the feeding of vegetation within the application area. Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

Postemergence (In-crop) for Tassel Control in Roundup Hybridization Systems Only

THIS APPLICATION IS FOR USE ONLY IN SEED PRODUCTION OF CORN HYBRIDS USING THE ROUNDUP HYBRIDIZATION SYSTEM (RHS). DO NOT MAKE THIS APPLICATION ON CORN GROWN FOR FOOD OR FEED.

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 could result in severe crop injury and yield loss.

USE INSTRUCTIONS: This product may be applied at rates of between 12 and 36 fluid ounces per acre as an over-the-top broadcast application for tassel control in RHS-based seed corn production fields from the V8 stage until either the V13 stage or 100 GDU (Growing Degeree Units) before flowering.

RESTRICTIONS: Make no more than two applications of this product for tassel control. The maximum total application rate of this product for tassel control is 72 fluid ounces. The maximum combined total amount of this product that may be applied per year for both weed control and tassel control, is 6 quarts per acre.

# 12.6 Sweet Corn Hybrids with Roundup Ready 2 Technology [Alternative heading: Roundup Ready Sweet Corn]

[Optional statement if using the title with Roundup Ready 2 Technology: Sweet corn hybrids with Roundup Ready 2 Technology include Roundup Ready Sweet Corn and sweet corn seed products displaying the Roundup Ready 2 Technology logo.]

The directions for use in this section apply only to use on SWEET CORN hybrids with Roundup Ready 2 Technology [Alternative text: The directions for use in this section apply only to use on Roundup Ready Sweet Corn]. For directions for use on FIELD CORN hybrids that contain Roundup Ready 2 Technology, see the "Field Corn Hybrids with Roundup Ready 2 Technology" section of this label.

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 sweet corn hybrids with Roundup Ready 2 Technology. [Alternative text: Refer to the following table for maximum application rates of this product with Roundup Ready sweet corn.]

Maximum Application Rates		
Combined total per year for all applications	6 quarts per acre	
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre	
Maximum single In-crop application rate up to 48-inch sweet corn	48 fluid ounces per acre	
Total for all In-crop applications from emergence through 48-inch sweet corn	4.6 quarts per acre	

See the "ROUNDUP READY CROPS" section of this label for information 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.

PRECAUTIONS: The use of the in-crop (over-the-top) applications described in this section on other than sweet corn hybrids with Roundup Ready 2 Technology could cause crop injury and reduced yields. [Alternative text: The use of the in-crop (over-the-top) applications described in this section on other than Roundup Ready sweet corn 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 sweet corn hybrids with Roundup Ready 2 Technology. [Alternative text: This product may be applied alone or in a tank mixture before, during or after planting Roundup Ready sweet corn.]

TANK MIXTURES: This product may be tank-mixed with the residual herbicide products listed below for maximum weed control. Ensure that the product used is labeled for application prior to emergence of sweet 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 in 10 to 60 gallons of nitrogen solution per acre.

acetochlor; atrazine; carfentrazone-ethyl; dimethenamid-p; metolachlor; s-metolachlor

AAtrex 4L; AAtrex Nine-O; Aim EC; Aim EW; Atrazine 4L; Atrazine 90 DF; Bicep II MAGNUM; Bicep II MAGNUM FC; Bicep Lite II MAGNUM; Cinch; Cinch ATZ; Degree Xtra; Dual MAGNUM; Dual II Magnum; FulTime; Guardsman MAX; Harness; Harness Xtra; Harness Xtra 5.6L; Keystone; Keystone LA; Keystone LA NXT; Keystone NXT; Me-Too-Lachlor II; Outlook; TopNotch

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season.

# Postemergence (In-crop)

USE INSTRUCTIONS: Apply this product alone or in a tank mixture over the top of [Optional text: Roundup Ready] sweet corn [Alternative text: hybrids with Roundup Ready 2 Technology] from emergence through the V8 stage (8 leaves with collars), or until sweet corn plant height reaches 30 inches (freestanding), whichever comes first. Use drop nozzles for optimum spray coverage and weed control when sweet corn plant height is 24 to 30 inches. When sweet corn plants are 30 to 48 inches tall (freestanding), apply this product using **only** ground application equipment fitted with drop nozzles aligned to avoid spraying into the whorls of the sweet corn plants. Avoid spraying if the crop has reached the reproductive stage. Maximum single in-crop application rate of this product up to 48-inch sweet corn is 48 fluid ounces per acre. Total in-crop application of this product from emergence through 48 inches in height must not exceed 4.6 quarts (148 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. Apply 18 to 24 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, a sequential application of 18 to 24 fluid ounces per acre may be made before weeds exceed 4 inches in height.

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

atrazine; carfentrazone-ethyl; foramsulfuron; tembotrione; topramezone

AAtrex 4L; AAtrex Nine-O; Aim EC; Aim EW; Atrazine 4L; Atrazine 90 DF; Callisto; Callisto Xtra; Impact; Laudis

RESTRICTIONS: Allow a minimum of 10 days between in-crop applications of this product. Do not apply atrazine in a tank-mix with this product when sweet corn plants are greater than 12 inches tall. Allow a minimum of 30 days between application of this product and harvest of sweet corn forage or grain.

#### 12.7 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	6 quarts per acre	
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre	
Total for all In-crop applications from cracking to layby	3 quarts per acre	
Maximum Preharvest application rate	48 fluid ounces per acre	
Combined total for all In-crop applications from emergence through harvest	4.5 quarts per acre	

See the "ROUNDUP READY CROPS" section of this label for information 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 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 product used is labeled for application prior to the emergence of cotton. Read and follow label directions for all products in the tank mixture.

acetochlor; clomazone; diuron; flumioxazin; fluometuron; fomesafen; metolachlor; s-metolachlor; norflurazon; pendimethalin; prometyrn; pyrithiobac-sodium; saflufenacil

Caparol 4L; Command 3ME; Cotoran 4L; Cotton Pro; Dawn; Direx 4L; Dual MAGNUM; Dual II MAGNUM; Karmex DF; Prowl 3.3 EC; Prowl H2O; Reflex; Rowel; Sharpen Powered by Kixor; Stalwart; Staple LX; Valor SX; Warrant; Warrant Ultra

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season.

#### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied over the top of Roundup Ready cotton (in-crop) at rates of up 24 fluid ounces per acre per application from 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 A MINIMUM OF 10 DAYS APART AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS. Over-the-top application 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 product used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions for all products in the tank mixture.

acetochlor; clethodim; fluazifop-P-butyl; fomesafen; metolachlor; s-metolachlor; monosodium acid methanearsonate; pyrithiobac-sodium; quizalofop-p-ethyl, sethoxydim; trifloxysulfuron-sodium

Assure II; Dual MAGNUM; Dual II MAGNUM; Envoke; Fusilade DX; MSMA 6 Plus; MSMA 6.6; Poast; Poast Plus; Reflex; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Stalwart; Staple LX; Warrant; Warrant Ultra

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

[Optional text: [Dual MAGNUM, Dual II MAGNUM and Stalwart] applied over the top of Roundup Ready cotton could cause leaf injury in the form of necrotic spotting.]

**Salvage Treatment** – may be made after the 4-leaf stage of development and only when weeds threaten to cause the loss of the crop. Apply 24 fluid ounces of this product per acre either as an over-the-top application or as a post-directed application sprayed higher on the cotton plants and onto the weeds.

IN THE STATE OF ARIZONA ONLY, up to 36 fluid ounces of this product may be applied per acre either as an over-the-top application or a post-directed application for salvage treatment.

**NOTE:** SALVAGE TREATMENT WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT MAY BE MADE PER GROWING SEASON.

RESTRICTIONS: Maximum quantity of this product that may be applied for all in-crop applications from cracking to layby combined is 3 quarts per acre per season. Allow a minimum of 7 days between application and harvest of cotton.

#### **Selective Equipment (In-crop)**

USE INSTRUCTIONS: This product may be applied using precision post-directed or hooded sprayers at rates of up to 24 fluid ounces per acre per application to Roundup Ready cotton through layby. At this crop stage, use post-directed application equipment to direct the spray towards the base of the cotton plants, avoiding contact of the herbicide spray with the leaves of the plant. To minimize 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 enhanced 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 may be tank-mixed with the following products for in-crop application using precision post-directed or hooded sprayers. Ensure that the product used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions for all products in the tank mixture.

acetochlor; carfentrazone-ethyl; diuron; flumioxazin; fluometuron; fomesafen; linuron; metolachlor; monosodium acid methanearsonate; pendimethalin; prometyrn; pyrithiobac-sodium; trifloxysulfuron-sodium

Aim EC; Aim EW; Caparol 4L; Cotoran 4L; Direx 4L; Envoke; Layby-Pro; MSMA 6 Plus; MSMA 6.6; Prowl 3.3 EC; Prowl H2O; Rowel; Staple LX; Valor SX; Warrant; Warrant Ultra

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

RESTRICTIONS: Maximum quantity of this product that may be applied for all in-crop applications from cracking to layby combined is 2.75 quarts per acre per season. Allow a minimum of 7 days between application and harvest of cotton. 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 IN-CROP APPLICATIONS OF THIS PRODUCT MUST BE A MINIMUM OF 10 DAYS APART

AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS.

#### **Preharvest**

USE INSTRUCTIONS: Up to 48 fluid ounces of this product per acre may be applied for annual and perennial weed control prior to crop harvest after 20 percent boll crack.

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

PRECAUTIONS: 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 EXCEED A SURFACTANT CONCENTRATION 0.5% BY WEIGHT (2 QUARTS PER 100 GALLONS OF SPRAY SOLUTION WHEN MAKING A PREHARVEST APPLICATION TO ROUNDUP READY COTTON. Surfactant concentrations exceeding 0.5% could result in crop injury and reduced yield.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest of 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 ACCORDANCE WITH THE LABEL DIRECTIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

#### 12.8 Roundup Ready Flex Cotton

The directions for use of this product provided in this section are specific to and may 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 directions for use in this section with those in the "Roundup Ready Cotton" section of this label, or with any other directions for use on Roundup Ready cotton or Roundup Ready Flex cotton on labeling for this or any other glyphosate-containing product. 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	6 quarts per acre			
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre			
Total for all In-crop applications from cracking to 60 percent open bolls	4.5 quarts per acre			
Total for all In-crop applications between layby and 60 percent open bolls	48 fluid ounces per acre			
Total for all in-crop applications from 60 percent open bolls to 7 days prior to harvest	48 fluid ounces per acre			
Total for all In-crop applications from emergence through harvest	4.5 quarts per acre			

See the "ROUNDUP READY CROPS" section of this label for information 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 product used is labeled for application prior to emergence of cotton. Read and follow label directions for all products in the tank mixture.

acetochlor; clomazone; diuron; flumioxan; fluometuron; fomesafen; metolachlor; s-metolachlor; norflurozon; pendimethalin; prometyrn; pyrithiobac-sodium; saflufenacil

Caparol 4L; Command 3ME; Cotoran 4L; Cotton Pro; Dawn; Direx 4L; Dual MAGNUM; Dual II MAGNUM; Karmex DF; Prowl 3.3 EC; Prowl H2O; Reflex; Rowel; Sharpen Powered by Kixor; Stalwart; Staple LX; Valor SX; Warrant; Warrant Ultra

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season.

# 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 rate of 24 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 36 fluid ounces per acre per application. In addition to broadcast application, post-directed spray equipment may be used to achieve more thorough weed coverage.

IN THE STATES OF ARIZONA, NEW MEXICO AND TEXAS (WEST OF I-35) ONLY, up to 48 fluid ounces of this product per acre may be applied per postemergence application using ground application equipment.

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.

acetochlor; clethodim; fluazifop-P-butyl; fomesafen; metolachlor; s-metolachlor; monosodium acid methanearsonate; pyrithiobac-sodium; quizalofop-p-ethyl; sethoxydim; trifloxysulfuron-sodium

Assure II; Dual MAGNUM; Dual II MAGNUM; Envoke; Fusilade DX; MSMA 6 Plus; MSMA 6.6; Poast; Poast Plus; Reflex; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Stalwart; Staple LX; Warrant; Warrant Ultra

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

[Optional text: [Dual MAGNUM, Dual II MAGNUM and Stalwart] applied over the top of Roundup Ready Flex cotton could cause leaf injury in the form of necrotic spotting.]

This product may be tank-mixed with the following products for in-crop application using precision post-directed or hooded sprayers.

acetochlor; carfentrazone-ethyl; diuron; flumioxazin; fluometuron; fomesafen; linuron; metolachlor; monosodium acid methanearsonate; pendimethalin; prometyrn; pyrithiobac-sodium; trifloxysulfuron-sodium

Aim EC; Aim EW; Caparol 4L; Cotoran 4L; Direx 4L; Envoke; Layby-Pro; MSMA 6 Plus; MSMA 6.6; Prowl 3.3 EC; Prowl H2O; Rowel; Staple LX; Valor SX; Warrant; Warrant Ultra

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

Ensure that the product used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions for all products in the tank mixture.

PRECAUTIONS: DO NOT EXCEED A SURFACTANT CONCENTRATION 0.5% BY WEIGHT (2 QUARTS PER 100 GALLONS OF SPRAY SOLUTION WHEN MAKING AN OVER-THE-TOP IN-CROP APPLICATION TO ROUNDUP READY FLEX COTTON. Surfactant concentrations exceeding 0.5% could result in crop injury and reduced yield.

RESTRICTIONS: The maximum single, in-crop application rate of this product to Roundup Ready Flex cotton using ground application equipment is 36 fluid ounces per acre, except in Arizona, New Mexico and west Texas (west of I-35 only), where up to 48 fluid ounces per acre may be applied in a single application using ground application equipment. In-crop application rates above 24 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 single, in-crop application rate of 24 fluid ounces of this product per acre when using aerial application equipment, except in Arizona, New Mexico and west Texas (west of I-35 only), where up to 36 fluid ounces may be applied as a single application using aerial application equipment. Between layby and 60 percent open bolls, the maximum combined total application rate of this product is 48 fluid ounces per acre. The combined total for all applications of this product made from crop emergence to 60 percent open bolls must not exceed 4.5 quarts per acre.

#### **Preharvest**

USE INSTRUCTIONS: Up to 48 fluid ounces of this product per acre may be applied to Roundup Ready Flex cotton 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: DO NOT EXCEED A SURFACTANT CONCENTRATION 0.5% BY WEIGHT (2 QUARTS PER 100 GALLONS OF SPRAY SOLUTION WHEN MAKING A PREHARVEST APPLICATION TO ROUNDUP READY FLEX COTTON. Surfactant concentrations exceeding 0.5% could result in crop injury and reduced yield.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest of 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 ACCORDANCE WITH THE LABEL DIRECTIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

## 12.9 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.

Maximum Application Rates				
Combined total per year for all applications	6 quarts per acre			
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre			
Total for all In-crop applications from cracking through flowering (R2 stage soybean)	72 fluid ounces per acre			
Maximum preharvest application rate	24 fluid ounces per acre			

See the "ROUNDUP READY CROPS" section of this label for information 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 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 product used is labeled for application prior to emergence of soybean. Read and follow label directions for all products in the tank mixture.

acetochlor; carfentrazone-ethyl; chlorimuron ethyl; clethodim; clomazone; cloransulam-methyl; dimethenamid; dimethenamid-p; fenoxaprop-p-ethyl; fluazifop-p-butyl; flufenacet; flumetsulam; flumiclorac pentyl ester; flumioxazin; fomesafen; fluthiacet-methyl; imazaquin; imazethapyr; lactofen; linuron; metolachlor; s-metolachlor; metribuzin; pendimethalin; pyroxasulfone; quizalofop-p-ethyl; saflufenacil; sulfentrazone; tribenuron methyl; trifluralin

Aim EC; Aim EW; Assure II; Authority Assist; Authority Elite; Authority First DF; Authority MAXX; Authority MTZ DF; Authority XL; Axiom DF; Blanket 4F; Boundary 6.5 EC; Cadet; Canopy; Canopy Blend; Canopy EX; Classic; Cobra; Command 3ME; Dawn; Dual MAGNUM; Dual II MAGNUM; Fierce; Fierce XLT; FirstRate; Flexstar; Fusion; Linex 4L; Lorox DF; Me-Too-Lachlor; Optill Powered by Kixor; Outlook; Phoenix; Prowl 3.3 EC; Prowl H2O; Pursuit; Python WDG; Reflex; Resource; Rhythm; Rowel; Rowel FX; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Sharpen Powered by Kixor; Spartan 4F; Treflan 4L; Treflan 4 EC; TriCor 4F; TriCor DF; Valor SX; Valor XLT; Warrant; Warrant Ultra; Zidua

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season.

#### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be used to control annual grasses and broadleaf weeds in Roundup Ready soybean from emergence (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 24 fluid ounces of this product per acre will control or suppress most 2- to 8-inch tall weeds, which are normally found 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 48 fluid ounces per acre as a single, incrop application for control of annual weeds and where dense weed populations exist.

Application of 24 to 48 fluid ounces of this product per acre (single or multiple applications) will control or suppress perennial weeds, including bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (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 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 NEEDED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP. To control giant ragweed, apply 24 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 product used is labeled for application postemergence (in-crop) to soybean. Read and follow label directions for all products in the tank mixture.

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

Arrow 2EC; Assure II; Basagran; Basagran 5L; Cadet; Classic; Cobra; Dawn; Extreme; FirstRate; Flexstar; Fusilade DX; Fusion; Harmony SG; Phoenix; Poast; Poast Plus; Pursuit; Raptor; Reflex; Resource; Rhythm; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Synchrony XP; Targa; Ultra Blazer; Warrant; Warrant Ultra

PRECAUTIONS: In some cases, these tank-mix products will cause visual soybean injury.

RESTRICTIONS: The combined total application of this product from crop emergence through harvest must not exceed 72 fluid ounces per acre. The maximum rate for any single in-crop application is 48 fluid ounces per acre. The maximum combined total amount of this product that may be applied during flowering (R2 stage soybean) is 48 fluid ounces per acre.

#### **Preharvest**

USE INSTRUCTIONS: Apply up to 24 fluid ounces of this product per acre to Roundup Ready soybean for weed control prior to harvest after pods have set and lost all green color. Take care to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: Allow a minimum of 14 days between 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 needed for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for weed control application after harvest of soybean. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

# 12.10 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	6 quarts per acre			
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre			
Total for all In-crop applications from cracking through flowering (R2 stage soybean)	72 fluid ounces per acre			
Maximum Preharvest application rate	24 fluid ounces per acre			

See the "ROUNDUP READY CROPS" section of this label for information 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 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 product used is labeled for application prior to emergence of soybean. Read and follow label directions for all products in the tank mixture.

acetochlor; carfentrazone-ethyl; chlorimuron ethyl; clethodim; clomazone; cloransulam-methyl; dimethenamid; dimethenamid-p; fenoxaprop-p-ethyl; fluazifop-p-butyl; flufenacet; flumetsulam; flumiclorac pentyl ester; flumioxazin; fluthiacet-methyl; fomesafen; imazaquin; imazethapyr; lactofen; linuron; metolachlor; s-metolachlor; metribuzin; pendimethalin; pyroxasulfone; quizalofop-p-ethyl; saflufenacil; sulfentrazone; tribenuron methyl; trifluralin

Aim EC; Aim EW; Assure II; Authority Assist; Authority Elite; Authority First DF; Authority MAXX; Authority MTZ DF; Authority XL; Axiom DF; Blanket 4F; Boundary 6.5 EC; Cadet; Canopy; Canopy Blend; Canopy EX; Classic; Cobra; Command 3ME; Dawn; Dual MAGNUM; Dual II MAGNUM; Fierce; Fierce XLT; FirstRate; Flexstar; Fusion; Linex 4L; Lorox DF; Me-Too-Lachlor; Optill Powered by Kixor; Outlook; Phoenix; Prowl 3.3 EC; Prowl H2O; Pursuit; Python WDG; Reflex; Resource; Rhythm; Rowel; Rowel FX; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Sharpen Powered by Kixor; Spartan 4F; Treflan 4L; Treflan 4 EC; TriCor 4F; TriCor DF; Valor SX; Valor XLT; Warrant; Warrant Ultra; Zidua

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season.

#### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be used to control annual grasses and broadleaf weeds in Roundup Ready 2 Yield soybean from emergence (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 24 fluid ounces of this product per acre will control or suppress most 2- to 8-inch tall weeds, which are normally found 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 can be used up to 48 fluid ounces per acre as a single, in-crop application for control of annual weeds and where dense weed populations exist.

Application of 24 to 48 fluid ounces of this product per acre (single or multiple applications) will control or suppress perennial weeds, including bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed and wirestem muhly. For enhanced 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 may be necessary to control late flushes of weeds. IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE NEEDED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY 2 YIELD SOYBEAN CROP. To control giant ragweed, apply 24 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 product used is labeled for application postemergence (in-crop) to soybean. Read and follow label directions for all products in the tank mixture.

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

Arrow 2EC; Assure II; Basagran; Basagran 5L; Cadet; Classic; Cobra; Dawn; Extreme; FirstRate; Flexstar; Fusilade DX; Fusion; Harmony SG; Phoenix; Poast; Poast Plus; Pursuit; Raptor; Reflex; Resource; Rhythm; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Synchrony XP; Targa; Ultra Blazer; Warrant; Warrant Ultra

PRECAUTIONS: In some cases, these tank-mix products will cause visual soybean injury.

RESTRICTIONS: The combined total application of this product from crop emergence through harvest must not exceed 72 fluid ounces per acre. The maximum rate for any single in-crop application is 48 fluid ounces per acre. The maximum combined total amount of this product that may be applied during flowering (R2 stage soybean) is 48 fluid ounces per acre.

#### **Preharvest**

USE INSTRUCTIONS: Up to 24 fluid ounces of this product per acre may be applied to Roundup Ready 2 Yield soybean for weed control prior to harvest after pods have set and lost all green color. Take care to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: Allow a minimum of 14 days between 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 needed for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for weed control application after harvest of soybean. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: Application of this product must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

# 12.11 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	6 quarts per acre			
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre			
Maximum single application rate from emergence to 8-leaf stage	36 fluid ounces per acre			
Total for all applications made from emergence to 8-leaf stage	64 fluid ounces per acre			
Maximum single application rate between 8-leaf stage and canopy closure	24 fluid ounces per acre			
Total for all applications made between 8-leaf stage and canopy closure	48 fluid ounces per acre			

See the "ROUNDUP READY CROPS" section of this label for information 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 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 product used is labeled for application prior to emergence of sugarbeet. Read and follow label directions for all products in the tank mixture.

ethofumesate Norton SC

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season.

#### 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 applications of this product may be made with a minimum of 10 days between each application. This product will control or suppress most perennial weeds. For some perennial weeds, more than one application might be needed 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 product used is labeled for application postemergence (in-crop) to sugarbeet. Read and follow label directions for all products in the tank mixture.

clethodim; clopyralid; desmedipham; dimethenamid-p; ethofumesate; s-metolachlor; phenmedipham; quizalofop-p-ethyl; triflusulfuron-methyl

Assure II; Betamix; Betanex; Dual MAGNUM; Dual II MAGNUM; Norton SC; Outlook; Progress; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Stinger; Upbeet; Warrant

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

RESTRICTIONS: The combined total application of this product from crop emergence through harvest must not exceed 112 fluid ounces per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 36 fluid ounces per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 24 fluid ounces per acre. Allow a minimum of 30 days between application and sugarbeet harvest.

#### 13.0 FARMSTEAD USE

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, for hard-to-control 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 and perennial weeds, woody brush, trees and vines found on any part of the farmstead, including around building foundations and equipment storage areas, along and in fences, in 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.

TANK MIXTURES: This product may be tank-mixed with the following products, provided that the product used is labeled for these sites and uses. Refer to each individual product label for approved sites and application rates. Read and follow label directions for all products in the tank mixture.

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

Arsenal; Banvel; Banvel 480; Barricade 4L; Barricade 65WG; Clarity; Diuron 4L; Endurance; Escort XP; Karmex DF; Krovar I DF; Oust XP; Pendulum 3.3 EC; Pendulum 2G; Pendulum Aqua Cap; Plateau; Princep 4L; Princep Caliber 90; Princep Liquid; Ronstar 50 WSP; Ronstar Flo; Ronstar G; Sahara DG; Simazine 4L; Simazine 4L Flowable; Simazine 90DF; Simazine 90 WDG; Surflan AS Agricultural; Surflan AS Specialty; Surflan Flex; Surflan Flex T&O; Surflan XL 2G; Telar XP; Vanquish

For annual weeds, apply 24 fluid ounces of this product per acre when weeds are less than 6 inches tall, 36 fluid ounces per acre when weeds are 6 to 12 inches tall and 48 fluid ounces per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 48 fluid ounces to 3.75 quarts per acre in a tankmix with one of the products listed here. For application of tank mixtures using a backpack sprayer, handgun or other handheld applicator, see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for the required concentration of this product in the mix.

#### 13.2 Greenhouse/Shadehouse

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

PRECAUTIONS: Remove desirable vegetation before applying this product inside a greenhouse or shadehouse.

RESTRICTIONS: Turn air circulation fans off before applying this product inside a greenhouse or shadehouse and until the application solution has dried. Do not use inside 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 4.5 fluid ounces of this product per acre to suppress Kentucky bluegrass, 6 fluid ounces to suppress tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass, 12 fluid ounces to suppress bermudagrass, or 48 fluid ounces to suppress torpedograss or para grass. Make all applications in 10 to 20 gallons of spray solution per acre.

PRECAUTIONS: 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 brush and tree stumps on any terrestrial site

USE INSTRUCTIONS: This product may be used to control re-growth and re-sprouting of many species of woody brush and trees. Cut the woody brush or tree close to the soil surface and immediately apply a 50- to 100-percent (undiluted) 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 enhanced results, cut the woody brush or tree during period of active growth and full leaf expansion and apply this product. Some of the species controlled by this method of application of this product are:

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

PRECAUTIONS: 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 adjacent stems or trees when this product is

# applied to one or more trees sharing a common root system.

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

#### **Habitat Restoration and Maintenance**

**Habitat Management** 

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 or prior to planting desirable native species, and for similar broad-spectrum vegetation control 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 to eliminate 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 a minimum of 7 days after application before tilling.

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, and contain 0.5% or more of a non-ionic surfactant labeled for use with herbicides, the following use rates will control the annual weeds listed in the "ANNUAL WEEDS RATE TABLE" that follows.

- 24 fluid ounces per acre grass and broadleaf annual weeds less than 6 inches in height or circumference, and vines less than 3 inches in length.
- 36 fluid ounces per acre grass and broadleaf annual weeds 6 to 12 inches in height or circumference, and vines 3 to 6 inches in length.
- 48 fluid ounces per acre grass 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 INDICATED IN THE "ANNUAL WEEDS RATE TABLE."

Apply to actively growing annual weeds. New leaf development indicates active growth.

Annual weeds are often easiest to control when they are small. Control of older, mature (hardened) or otherwise hard-to-control annual weed species could require higher application rates than specified in this table, even if they meet the size requirements listed. This product may be applied at rates of up to 48 fluid ounces per acre for hard-to-contol annual weeds and where dense weed populations exist. Follow all precautions and restrictions, including maximum application rates and crop stage timings specified in the directions for use on specific 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 this product with soil residual herbicides when applying at these rates, unless otherwise directed.

For control of annual weeds using a handheld controlled droplet applicator (CDA), apply a 20-percent solution of this product (25 to 26 fluid ounces of this product per gallon of spray solution) at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1 quart per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in the following table, in 2 to 15 gallons of water per acre.

For weeds that have been mowed, grazed or cut, allow re-growth to occur prior to application of this product.

#### ANNUAL WEEDS RATE TABLE

	Broadcast Application Rate				
	(fluid ounces per acre)				
	12	18	24	30	36
Weed Species	Maximum Height/Length (inches)				
Ammannia, purple	3	6	12	-	18
Annoda, spurred	-	2	3	5	8
Barley	18	18+	-	-	-

	Broadcast Application Rate				
			iid ounces		
	12	18	24	30	36
Weed Species				Length (inc	
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
Cutleaf evening primrose	_	_	3	_	6
Devilsclaw (unicorn plant)	_	3	6	_	-
Dwarf dandelion	12	-	-	-	-
Eastern mannagrass	8	12	_	_	_
Eclipta	0	4	8	12	
Fall panicum	4	7	6	12	12
False dandelion	4	20	U	-	
	10		-	-	-
Falseflax, smallseed Fiddleneck	12	-	- 12	-	
	-	6	12	-	-
Field pennycress	6	12	-	-	-
Filaree	-	-	6	-	12
Fleabane, annual	6	20	-	-	-
Fleabane, hairy* (Conyza bonariensis)	-	-	6	-	10
Fleabane, rough	3	6	12	-	-

## II. DIRECTIONS FOR USE WITH FOOD AND FEED CROPS

		Broade	cast App	lication Rat	te
_				per acre)	
Wasd Onseins	12	18	24	30	36
Weed Species		waximun		<b>Length</b> (inc	
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, cressleaf	-	6	10	-	-
Hemp sesbania	-	2	4	6	8
Henbit	-	-	6	-	12
Horseweed/ Marestail* (Conyza Canadensis)	-	6	12	-	18
Itchgrass	6	8	12	-	18
Jimsonweed	-	-	12	-	18
Johnsongrass, seedling*	6	12	18	-	24
Junglerice*	-	3	6	7	9
Knotweed	-	-	6	-	12
Kochia* <sup>4</sup>	-	3 to 6	12	-	-
Lambsquarters	-	6	12	-	20
Little barley	6	12	-	-	-
London rocket	6	-	24	-	-
Mayweed	-	2	6	12	18
Morning glory, annual (Ipomoea spp)	-	-	3	-	6
Mustard; blue, tansy, tumble, wild	6	12	18	-	-
Nightshade; black, 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,* 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	-		
	0		1		Ω
Sicklepod	-	2	4	-	8

		Broad	cast Appl	ication Ra	te
			iid ounces		
	12	18	24	30	36
Weed Species		Maximur	n Height/L	<b>_ength</b> (inc	ches)
Signalgrass, broadleaf	-	3	6	7	9
Smartweed, ladysthumb	-	-	6	-	9
Smartweed, Pennsylvania	-	-	6	-	9
Sowthistle, annual	-	-	6	-	12
Spanish needles	-	-	6	-	12
Speedwell, purslane	12	-	-	-	-
Sprangletop	6	12	20	-	-
Spurge; prostrate, 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*5	-	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	-	-

<sup>&</sup>lt;sup>1</sup> For control of downy brome in no-till systems, apply 18 fluid ounces of this product per acre.

<sup>&</sup>lt;sup>2</sup> Performance of this product can be enhanced if application is made before this weed reaches the boot stage of growth.

Apply 18 fluid ounces of this product per acre to control wild buckwheat in the cotyledon to 2-leaf stage. Apply 24 fluid ounces per acre to control 2- to 4-leaf wild buckwheat. For enhanced control of wild buckwheat over 2 inches in size, make sequential applications of 24 fluid ounces followed by 24 fluid ounces of this product per acre.

<sup>&</sup>lt;sup>4</sup> Do not apply when kochia is in the button stage.

<sup>&</sup>lt;sup>5</sup> Control of Russian thistle can vary based on environmental conditions and spray coverage. If possible, apply this product in a tank mixture with 2,4-D, as described in the following section, to improve control.

<sup>\*</sup> A glyphosate-resistant biotype has been confirmed. For additional information, refer to the "WEED RESISTANCE MANAGEMENT" section of this label. You can also visit via the Internet, www.weedscience.org or www.weedresistancemanagement.com, or contact your Monsanto Company representative.

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

Enhanced control of certain hard-to-control weeds can be achieved by tank-mixing this product with dicamba, 2,4-D, or Tordon 22K. An appropriate rate of 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, marestail/horseweed, morning glory, kochia (in a tank-mix with dicamba only) wild buckwheat (in a tank-mix with Tordon 22K only); 12 inches—cocklebur, lambsguarters, pigweed, Russian thistle (in a tank-mix with 2,4-D only).

At application rates listed 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 enhanced control of these weeds, apply this product in a tank-mix with 2,4-D.

Ensure that the product used is labeled for application at the desired site. Follow all precautions and limitations on the tank-mix product label, including any application timing restrictions, soil restrictions, minimum re-cropping intervals and/or crop rotation restrictions. 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—Handheld Sprayers

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

For enhanced results on hard-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle, apply a 1.5-percent solution of this product.

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

#### 14.3 Annual Weeds—Tank Mixtures 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.

Application of 18 to 22 fluid ounces of this product per acre in a tank mixture with atrazine will provide enhanced control of the following weeds: barnyardgrass (requires 22 fluid ounces of this product per acre for control), downy brome, green foxtail, lambsquarters, prickly lettuce, tansy mustard, pigweed, field sandbur, stinkgrass, Russian thistle, volunteer wheat and witchgrass. For control of kochia, apply 16 to 20 fluid ounces of this product in a tank-mix with atrazine and dicamba. Ensure that the atrazine and dicamba products are labeled for the intended use and application site. Follow all precautions and limitations on the tank-mix product label, including any application timing restrictions, soil restrictions, minimum re-cropping intervals and/or crop rotation restrictions.

#### 15.0 PERENNIAL WEEDS RATE SECTION

Apply this product to actively growing perennial weeds. New leaf development indicates active growth. Enhanced results can be obtained when soil moisture is adequate for active weed growth.

If weeds have been recently mowed or tilled, do not apply this product until plants have resumed active growth and have reached the specified stage of growth or sufficient growth has been achieved to allow for good interception of the spray solution. For enhanced control, do not mow, cut, till, burn or disturb vegetation in the application area for a minimum of 7 days after application.

## II. DIRECTIONS FOR USE WITH FOOD AND FEED CROPS

For control of perennial weeds using a handheld controlled droplet applicator (CDA), apply a 20- to 40-percent solution of this product (25 to 51 fluid ounces per gallon of applicator solution) 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). When using a vehicle-mounted CDA, apply the appropriate amount of this product, as indicated in the following rate table, in 2 to 15 gallons of water per acre.

This product has no soil activity and does not control emergence of perennial weeds from seed and dormant underground roots, rhizomes or tubers present in the soil at the time of application. More than one application of this product might be necessary to control weeds regenerating from underground parts or seed, but must be made prior to crop emergence, except where in-crop application is allowed.

Application of this product in the fall must be made before a killing frost.

Unless otherwise directed, allow a minimum of 7 days after application before soil tillage.

PERENNIAL WEEDS RATE TABLE					
Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)		
Alfalfa Apply after last hay cutting in the fall and Follow with deep tillage after a minimum of					
Alligatorweed For partial control, apply this product when will be needed to achieve control.	3 n most target plants	3 – 20 s are in bloom. More	1.25% than one application		
Anise (fennel) <sup>1</sup>	_	_	0.75 – 1.5%		
Bahiagrass <sup>2</sup>	2.25 – 3.75	3 – 20	1.5%		
<b>Bentgrass</b> 1.125 10 – 20 1.5% For suppression in grass seed production areas using ground application equipment only. Ensure entire crown area has resumed growth prior to application in the fall. Ensure that bentgrass has at least 3 inches of growth before application. Avoid tillage prior to application. Tillage 7 to 10 days after application provides enhanced results.					
Devendence	0.05 0.75	2 20	4 = 0/		

Bermudagrass	2.25 - 3.75	3 - 20	1.5%
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For control, apply 3.75 quarts of this product per acre when bermudagrass is actively growing and seedheads are present. More than one application might be necessary to achieve control. For partial control, apply 2.25 quarts per acre.

Bermudagrass, water (knotgrass)	0.75 - 1.125	5 – 10	1.5%

Apply 36 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 a minimum of 7 days after application before tilling, flushing or flooding the field.

For fall application, till fallow fields and apply 24 fluid ounces of this product in 5 to 10 gallons of water per acre prior to frost and when water bermudagrass is 12 to 18 inches in length.

This product is not registered in the State of California for control of water bermudagrass.

Bindweed, field	0.45 - 3.75	3 – 20	1.5%

Do not apply this product when field bindweed is under drought stress, as good soil moisture is necessary for active plant growth and efficacy of this product.

For control, apply 2.75 to 3.75 quarts of this product per acre west of the Mississippi River and 2.25 to 2.75 quarts east of the Mississippi River when bindweed is at or beyond full bloom. For enhanced results, apply in late-summer or fall. Fall application must be made before a killing frost.

	Broadcast	Water	Handheld Sprayer
	Rate	Volume	Concentration
Weed Species	(quarts/acre)	(gallons/acre)	(% solution)

Also for control, apply 48 fluid ounces of this product plus an appropriate rate of dicamba in 10 to 20 gallons of water per acre. Do not apply this mixture using aerial application equipment.

For suppression of field bindweed on irrigated agricultural land, apply 24 to 48 fluid ounces of this product plus an appropriate rate 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 on fallow ground in the fall 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 12 fluid ounces of this product plus a rate of 2,4-D that will provide suppression of field bindweed 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. Application of this tank-mix using aerial equipment is only allowed on fallow fields and in reduced tillage systems. Delay application until maximum emergence has occurred and vines are 6 to 18 inches in length.

**In California only**, apply 24 fluid ounces to 3.75 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 24 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 before applying this product. Allow a minimum of 3 days after application before tillage.

#### Bluegrass, Kentucky

0.75 - 1.7

3 - 40

1.5%

Apply 48 fluid ounces of this product in 10 to 40 gallons of water per acre when most plants have reached the boot to early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 24 to 36 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing target plants when most have reached 4 to 12 inches in height.

## Blueweed, Texas

2.25 - 3.75

3 - 40

1.5%

Apply 3 to 3.75 quarts of this product per acre west of the Mississippi River or 2.25 to 3 quarts per acre east of the Mississippi River when plants are at or beyond full bloom. For enhanced results, apply in late-summer or fall. Fall application must be made before a killing frost.

Brac	kenf	ern
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2.25 - 3.3

Make application to fully expanded fronds that are at least 18 inches long.

3 - 40

1%

Bromegrass, smooth

0.75 - 1.75

3 \_ 40

1.5%

Apply 48 fluid ounces of this product in 10 to 40 gallons of water per acre when most plants have reached the boot to early-seedhead stage of development. For partial control in pasture or hay crop renovation, apply 24 to 36 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing bromegrass when it has reached a height of 4 to 12 inches.

#### Bursage, woolly-leaf

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3 - 20

1.5%

For control, apply 48 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 are at or beyond flowering. For partial control, apply 24 fluid ounces of this product per acre in a tank-mix with an appropriate rate of dicamba that will provide partial contro.

Canarygrass, reed <sup>2</sup>	1.7 – 2.25	3 – 40	1.5%
Cattail <sup>2</sup>	2.25 - 3.75	3 – 40	1.5%
Clover; red, white <sup>1</sup>	2.25 - 3.75	3 – 20	1.5%

Also for control, apply 12 to 24 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre.

Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
Cogongrass	2.25 – 3.75	10 – 40	1.5%

Apply in late-summer or fall when cogongrass is at least 18 inches tall. Due to uneven stages of growth and the dense nature of this vegetation preventing good spray coverage, more than one application might be necessary to achieve control.

Dallisgrass <sup>2</sup>	2.25 – 3.75	3 – 20	1.5%
Dandelion <sup>1</sup>	2.25 - 3.75	3 – 40	1.5%
Also for control cond. 40 fluid consec of		المراجع المراجع الماكان والأراجع الماجعة	manufata mata af 0 4 D in 0

Also for control, apply 12 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre.

**Dock, curly**<sup>1</sup> 2.25 - 3.75 3 - 40 1.5%

Also for control, apply 12 to 24 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D, in 3 to 10 gallons of water per acre.

**Dogbane, hemp** 3.5 3 – 40 1.5%

Apply when most target plants have reached the late-bud to flower stage of development. Allow weeds to re-grow to a mature stage prior to application of this product after crop harvest or mowing. For enhanced results, apply in late-summer or fall.

For suppression, apply 12 fluid ounces of this product in a tank-mix with an appropriate rate 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. Delay application until maximum emergence of dogbane has occurred.

Fescue (except tall) <sup>2</sup>	2.25 - 3.75	3 – 20	1.5%
Fescue, tall	0.75 - 2.25	3 – 40	1.5%

Apply 2.25 quarts of this product per acre when most tall fescue has reached the boot to early-seedhead stage of development.

For fall application, apply 24 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 12 fluid ounces of this product per acre will improve long-term control and will control seedlings germinating after fall application or in the following spring.

**Guineagrass** 1.5 – 2.25 3 – 40 0.75%

Apply when most target plants have reached the 7-leaf stage of growth. Ensure thorough coverage when using a handheld sprayer. In Texas and the ridge of Florida, apply 48 fluid ounces of this product per acre for control. In the flatwoods region of Florida, 2.25 quarts per acre is needed for control.

Horsenettle <sup>1</sup>	2.25 - 3.75	3 – 20	1.5%
Horseradish	3	3 – 40	1.5%
A section of the sect	l 41 1 - 4 - 1 1 4 - 1		la

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

Iceplant <sup>1</sup>	_	_	1.5 - 2%
The are controlled and a second and the attenuant	التربي في براء مسامر مراجلة الطائرين المسامرين	والمراجع والمراجع والمائي والمراجع والمراجع	

Thorough coverage of the target weed with this product will provide enhanced control.

Jerusalem artichoke <sup>1</sup>	2.25 – 3.75	3 – 20	1.5%
Johnsongrass	0.4 - 2.25	3 – 40	1%

In annual cropping systems, apply 24 to 48 fluid onces of this product in 3 to 10 gallons of water per acre. Use 48 fluid ounces of this product when applying in 10 to 40 gallons of water per acre. On non-crop sites or in areas where annual tillage is not practiced (no-till), apply 48 to 72 fluid ounces of this

	Broadcast Rate	Water Volume	Handheld Sprayer Concentration
Weed Species	(quarts/acre)	(gallons/acre)	(% solution)
product in 10 to 40 gallons of water per acre.			

product in 10 to 40 gallons of water per acre.

For enhanced results, apply when most johnsongrass has reached the boot to head stage of development or in the fall prior to frost. Allow a minimum of 7 days after application before tillage. Do not tank-mix with residual herbicides when applying 24 fluid ounces of this product per acre.

For burndown of johnsongrass, apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre before plants reach a height of 12 inches and allow a minimum of 3 days after application before tillage.

For partial control or suppression, apply a 0.75-percent solution of this product as a spot treatment when johnsongrass is 12 to 18 inches tall. Ensure that coverage is uniform and complete.

1.5 - 2.253 - 40Kikuyu grass

Apply when most kikuyu grass is at least 8 inches tall (3- or 4-leaf stage of growth). Allow a minimum of 3 days after application before tillage.

3 - 40

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

Apply when most target plants have re	ached the late-bud to f	lower stage of gro	owth.	
Milkweed, common	2.25	3 - 40	1.5%	
Lespedeza <sup>1</sup>	2.25 - 3.75	3 – 20	1.5%	
Apply at or beyond the bloom stage of	growth.			
Lantana	_	_	1%	

Muhly, wirestem 0.75 - 1.753 - 401.5%

Apply 24 fluid ounces of this product in 3 to 10 gallons of water per acre, or 48 fluid ounces when applying in 10 to 40 gallons of water per acre or whenever applying in pasture, sod, or non-crop areas, when wirestem muhly is at least 8 inches tall. Do not till the soil between harvest and fall application, or in the fall or spring prior to spring application. Allow a minimum of 3 days after application before tillage.

Mullein, common <sup>1</sup>	2.25 - 3.75	3 – 20	1.5%	
Napiergrass <sup>2</sup>	2.25 – 3.75	3 – 20	1.5%	
Nightshade, silverleaf	1.5	3 – 10	1.5%	

For enahnced results, apply when at least 60 percent of the target plants have berries. Fall application must be made before a killing frost.

Nutsedge; purple, yellow 0.5 - 2.253 - 401 - 1.5%

For control of nutsedge plants and immature nutlets, apply 2.25 quarts of this product per acre or a 1to 1.5-percent solution 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 will need repeated applications of this product after germination for long-term control.

Sequential applications of 24 to 48 fluid ounces of this product in 3 to 10 gallons of water per acre when a majority of the nutsedge 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 5leaf stage. Subsequent applications will be necessary for long-term control.

For partial control of existing nutsedge, apply 12 to 48 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 this application as needed to control newly emerging plants or re-growth of existing plants.

Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
Orchardgrass	0.75 – 1.75	3 – 40	1.5%

Apply 48 fluid ounces of this product in 10 to 40 gallons of water per acre when most plants have reached the boot to early-seedhead stage of development. For partial control in pasture or hay crop renovation, apply 24 to 36 fluid ounces of this product in 3 to 10 gallons of water per acre when orchardgrass is actively growing and has reached 4 to 12 inches in height.

When going from orchardgrass sod to no-till corn, apply 24 to 36 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 a minimum of 3 days after application before planting. A sequential application of atrazine will be necessary to achieve optimum results.

#### Pampas grass – – 1.5%

Apply this product when pampasgrass is at or beyond the boot stage of growth. Thorough coverage will provide ehanced control.

Para grass <sup>2</sup>	2.25 – 3.75	3 – 20	1.5%
Phragmites	2.25 – 3.75	10 – 40	1 – 1.5%

For partial control and enhanced results, apply this product in late-summer or fall when plants are actively growing and in full bloom. Application before or after this stage could result in reduced control. Due to the dense nature of this vegetation (which can prevent good spray coverage) and uneven stages of growth, more than one application might be necessary to achieve control. Visual symptoms of control will be slow to develop.

## Poison hemlock − 1 − 1.5%

Apply this product using a handheld sprayer with a spray-to-wet technique. Optimum results are obtained when thoroughly applied to target plants that are at the bud to full-bloom stage of growth.

Pokeweed, common	1.125	3 – 40	1.5%		
Apply to actively growing target plants up to 24 inches tall.					
Quackgrass	0.75 – 2.25	3 – 40	1.5%		

In annual cropping systems or in pastures and sod fields to be cultivated with deep tillage, apply 24 fluid ounces of this product in 3 to 10 gallons of water per acre or 48 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 24-fluid-ounce rate. Do not till between harvest and fall application, or in the fall or spring prior to spring application. Allow a minimum of 3 days after application before tillage. In pastures or sod fields, use a moldboard plow for enhanced results.

In pastures, sod fields or non-crop areas where deep tillage will not follow application of this product, apply 48 to 68 fluid ounces in 10 to 40 gallons of water per acre when quackgrass is greater than 8 inches tall.

**Redvine** 0.5 - 1.75 5 - 10 1.5%

For suppression, make two applications of 18 fluid ounces of this product 7 to 14 days apart, or a single application of 48 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 a minimum of 1 week before a killing frost.

Reed, giant – – 1.5%
Enhanced results can be obtained when application is made in late-summer or fall.

Ryegrass, perennial 0.75 – 2.25 3 – 40 0.75%

In annual cropping systems, apply 24 to 44 fluid ounces of this product in 3 to 10 gallons of water per

Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
acre, or 48 fluid ounces when applyin areas where annual tillage is not pract 40 gallons of water per acre.	g in 10 to 40 gallons of	f water per acre. Or	non-crop sites or in
For enhanced results, apply when mo the fall prior to frost. Do not tank-mix product per acre.			
Smartweed, swamp <sup>1</sup> Also for control, apply 12 fluid ounces to 10 gallons of water per acre in late-s		3 – 40 -mix with an appropri	1.5% iate rate of 2,4-D in
Sowthistle, perennial Apply when most plants are at or bey late-summer or fall, allow a minimum of prior to application of this product. minimum of 3 days after application be	of 4 weeks for initiation Fall application must	of active growth and	rosette developmen
Spurge, leafy For suppression, apply 12 fluid ounces 3 to 10 gallons of water per acre in lat most target plants are 12 inches tall.			
Starthistle, yellow Enhanced results can be obtained wh stage.	1.7 en application is made	10 – 40 during the rosette, b	1.5% oolting or early-flowe
Sweet potato, wild For partial control, apply to plants the application might be needed.	at are at or beyond the	_ e bloom stage of gro	1.5% owth. More than on
Thistle, artichoke For partial control, apply when plants application might be needed.	- s are at or beyond the	_ bloom stage of gro	1.5% owth. More than on
Thistle, Canada Apply when most target plants are at or tillage in late-summer or fall, allow development prior to application of this For suppression in the spring, apply product in a tank-mix with an appropria is a minimum of 6 inches in diameter. plants are actively growing.  Allow a minimum of 3 days after applic	a minimum of 4 weeks product. Fall application 24 fluid ounces of this ate rate of 2,4-D in 3 to application may be many be ma	for initiation of active on must be made before product alone or 12 10 gallons of water p	e growth and rosette ore a killing frost. I fluid ounces of thi er acre when rosette
, most a minimum of o days after applic	attori botoro tillago.		
Timothy <sup>2</sup>	1.7 – 2.25	3 – 40	1.5%

For partial control, apply in late-September or October when trumpetcreeper is a minimum of 18 inches

1.7

development. More than one application will be needed to achieve control. Fall application must be

5 - 10

made before frost.

Trumpetcreeper

	Broadcast Rate	Water Volume	Handheld Sprayer Concentration
Weed Species	(quarts/acre)	(gallons/acre)	(% solution)
tall and has been growing 45 to 60 days sir 1 week before a killing frost.	ice the last tillage o	peration. Make appli	cation a minimum of
Vaseygrass <sup>2</sup>	2.25 – 3.75	3 – 20	1.5%
Velvetgrass <sup>2</sup>	2.25 – 3.75	3 – 20	1.5%
Wheatgrass, western <sup>2</sup>	1.7 – 2.25	3 – 40	1.5%

<sup>&</sup>lt;sup>1</sup> Apply when most plants have reached the early-bud stage of development.

#### 16.0 WOODY BRUSH, TREES AND VINES RATE SECTION

Apply this product during full leaf expansion, unless otherwise directed. Use a higher rate of application or spray solution concentration within a given range for larger plants or in areas of dense vegetative growth. On vines, use a higher rate of application or spray solution concentration for plants that have reached the woody stage. Enhanced results can be obtained when application is made in late-summer or fall after fruit formation.

In arid areas, enhanced results can be obtained when application is made in spring to early-summer when brush species are at high moisture content and flowering.

Unless otherwise directed, make broadcast applications in 3 to 40 gallons of water per acre. Ensure thorough coverage when using handheld sprayers. Herbicidal symptoms might not appear prior to frost or senescence following application in the fall.

Allow a minimum of 7 days after application before tillage, mowing or removal of vegetation in the application area. Repeat applications might be necessary to control plants regenerating from underground parts or seed. Some autumn color on undesirable deciduous species is acceptable when applying this product, provided no major leaf drop has occurred. Reduced performance could result if fall application is made after a frost.

#### WOODY BRUSH, TREES AND VINES RATE TABLE

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% solution)
Alder	2.25 - 3.3	1 – 1.5%
Ash <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Aspen, quaking	1.75 – 2.25	1 – 1.5%
Bearmat (Bearclover) <sup>1</sup>	1.75 – 2.25	1 – 1.5%
Beech <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Birch	1.75 – 3.75	1%
Blackberry	2.25 – 3.3	1 – 1.5%.

Apply after target plants have reached full leaf maturity. Ehanced results can be obtained when application is made in late-summer or fall. Apply a 1-percent solution of this product after berries have set or dropped in late-fall. After leaf drop and until a killing frost or as long as stems are green, apply 2.25 to 3 guarts of this product in 10 to 40 gallons of water per acre.

<sup>&</sup>lt;sup>2</sup> Apply when most plants have reached the early-heading stage of development.

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% solution)
Blackgum	1.5 – 3.75	1 – 1.5%
Bracken	1.5 – 3.75	1 – 1.5%
Broom; French, Scotch	_	1.5%
Buckwheat, California <sup>1,2</sup>	_	1 – 1.5%
Cascara <sup>1</sup>	1.5 – 3.75	1 – 1.5%
Catsclaw <sup>1</sup>	_	1 – 1.5%
Ceanothus <sup>1</sup>	1.5 – 3.75	1 – 1.5%
Chamise <sup>2</sup>	_	1%
Cherry; bitter, black, pin	1.5 – 2.25	1 – 1.5%
Coyote brush Apply when at least 50 percent of the new leaves are f	ully developed.	1.5%
Dogwood <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Elderberry	1.75 – 2.25	1%
Elm <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Eucalyptus For control of eucalyptus re-sprouts, apply when re- coverage. Application to drought-stressed eucalyptus p		
Florida holly (Brazilian Peppertree) <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Gorse <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Hasardia <sup>1,2</sup>	_	1 – 1.5%
Hawthorn	1.75 – 2.25	1 – 1.5%
Hazel	1.75 – 2.25	1%
Hickory <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Honeysuckle	1.75 – 3.3	1 – 1.5%
Hornbeam, American <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Kudzu  More than one application might be needed to achieve	3.3 – 3.75 control.	1.5%
Locust, black <sup>1</sup>	1.75 – 3.3	1 – 1.5%
Madrone re-sprouts <sup>1</sup> Apply to re-sprouts that are 3 to 6 feet tall. Enhanc summer application.	ed results can be obtain	1.5% ned with spring or early-
Manzanita <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Maple, red Apply a 1.5-percent solution when at least 50 percent control, apply 1.75 to 3.3 quarts of this product per acr		1 – 1.5% illy developed. For partial
Maple, sugar Apply when at least 50 percent of the new leaves are f	ully developed.	1 – 1.5%
Monkey flower <sup>1,2</sup>	_	1 – 1.5%

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% solution)
Oak; black, white <sup>1</sup>	1.75 – 3.3	1 – 1.5%
Oak, post	2.25 – 3.3	1 – 1.5%
Oak; northern Apply when at least 50 percent of the new pin least	_	1 – 1.5%
Oak; southern red	1.75 – 2.25	1 – 1.5%
Persimmon <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Pine	1.75 – 3.75	1 – 1.5%
	3 – 3.75	1.5%
Poison ivy/Poison oak  More than one application might be needed to a before leaves lose green color.		
Poplar, yellow <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Redbud, eastern	1.75 – 3.75	1 – 1.5%
Rose, multiflora  Make application prior to leaf deterioration by leaf	1.75 -eating insects.	1%
Russian olive <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Sage, black <sup>2</sup>	_	1%
Sage, white <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Sage brush, California <sup>2</sup>	_	1%
Salmonberry	1.75 – 2.25	1%
Saltcedar	1.75 – 3.75	1 – 1.5%
Sassafras <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Sourwood <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Sumac; poison, smooth, winged <sup>1</sup>	1.75 – 3.3	1 – 1.5%
Sweetgum	1.75 – 2.25	1 – 1.5%
Swordfern <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Tallowtree, Chinese <sup>2</sup>	_	1%
Tan oak re-sprouts <sup>1</sup> Apply to re-sprouts that are less than 6 feet tall. E in the fall.	_ inhanced results can be obta	1.5% ined following application
Thimbleberry	1.75 – 2.25	1%
Tobacco, tree <sup>1</sup>	_	1 – 1.5%
Trumpetcreeper	1.75 – 2.25	1 – 1.5%
Vine maple <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Virginia creeper	1.75 – 3.75	1 – 1.5%
Waxmyrtle, southern <sup>1</sup>	1.75 – 3.75	1 – 1.5%
Willow	2.25 – 3.3	1%

<sup>&</sup>lt;sup>1</sup> Partial Control

#### 18.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company ("Company") warrants that this product conforms to the chemical description on the label 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 use this product only for the purposes of and in accordance with the Complete Directions for Use label ("Directions") and 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, injuries 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, crop injury or 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, use and/or application in any manner not explicitly set forth in or inconsistent with 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.

[Optional statement for agricultural-use products, if applicable: 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 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.

[Amplify, Bullet, Certainty, Degree, Degree Xtra, Harness, INTRRO, Lariat, Lasso, Micro-Tech, Monsanto and Vine Design, Outrider, Roundup, Roundup Custom and Design, [ALTERNATE BRAND NAME and DESIGN], Roundup Original, Roundup Ready, Roundup Ready 2 Technology, Roundup Ready 2 Yield, Roundup Ready PLUS and Design, Rowel, TripleFLEX, TruFlex, TRUEBLUE ADVANTAGE PROVEN RELIABLE SUPPORTED and Design, and Warrant] are [registered] trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

<sup>&</sup>lt;sup>2</sup> Thorough coverage of foliage is necessary for enhanced results.

## II. DIRECTIONS FOR USE WITH FOOD AND FEED CROPS

EPA Reg. No. 524-343

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

©[Year]

Packed for:

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

[Insert print plate number]

## [INSERT BRAND NAME] [Logo]

## **Complete Directions for Use**

GROUP	9	HERBICIDE
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EPA Reg. No. 524-343

A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, [Optional text, if applicable: select crop.] and other listed terrestrial weed control.

(For a complete list of aquatic and terrestrial use sites, see the Directions for Use section of this label.)

[Optional statement for limited-geography product distribution: This product is not registered in all states.]

[Additional optional statements for limited-geography product distribution: For control of annual and perennial weeds in [list states and or county-level information, as appropriate, where product is registered and distributed]. [Optional text: \*County Distribution:] [Optional text: see inside for details.] [Optional text: In [list states] this product is distributed in the counties listed below:] [list counties by state]

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS,] AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

[Optional label statement: Roundup® – Powerful Performance at a Practical Price]

[Optional label statement: Roundup Ready PLUS™ – Weed Management Solutions (Logo)]

[Optional label statement: TrueBlue Advantage – Proven – Reliable – Supported® (Logo)]

[Optional label statement: A member of the Roundup® Family of Herbicides by Monsanto]

[Optional label statement: A member of the Roundup® Family of Agricultural Herbicides by Monsanto]

Read the entire label before using this product.

Use only according to label directions.

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 this labeling before buying or using. If terms are not acceptable, return at once unopened.

THIS IS AN END-USE PRODUCT. MONSANTO COMPANY 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 isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

\*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt per liter, or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

[Optional label text that will be updated at the time of printing, if applicable: This product is protected by U.S. Patent No.'s [List appropriate patents].]

[Optional label text, if applicable: Other Patents Pending.]

[Optional label text, if applicable: No license granted under any non-U.S. patent(s).

[Option to insert reference to a Monsanto Patent Website: For a list of patents, if any, covering this product or its use, please go to www.monsantotechnology.com.]

#### 2.0 IMPORTANT PHONE NUMBERS

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

(314) 694-4000

#### 3.0 PRECAUTIONARY STATEMENTS

#### 3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children

## **CAUTION**

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation 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)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks and shoes.

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

#### **User Safety Recommendations:**

Users should:

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

#### 3.2 Environmental Hazards

Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark [Optional text, if applicable: , except if applying aerially over the forest canopy]. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.

[Alternative text for labels with aquatic uses only: Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.]

## 3.3 Physical or Chemical Hazards

Spray solutions of this product may be mixed, stored and applied using 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 and cause 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 may only be used in accordance with the Directions for Use on this label or on separately published supplemental labeling. Supplemental labeling for this product can be 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 regulation.

## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training,

decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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 and disposal.

**PESTICIDE STORAGE:** STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or shake container or recirculate contents of larger containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination. See individual container label for additional storage conditions, if any.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in the 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.

**CONTAINER HANDLING AND DISPOSAL:** [Optional label text, if applicable: See container label for container handling and disposal instructions and refilling limitations.] [Alternative optional text for ECL label: See base label attached to the container for container handling and disposal instructions and refilling limitations.]

[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 the container.

[Alternative container statement: Nonrefillable container. Do not reuse the 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 the container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

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

Nonrefillable container. Do not reuse the 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.

[Alternative container statement: Nonrefillable container. Do not reuse or refill the container.]

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

Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to 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 mix-tank, or store rinsate for later use or disposal. Continue to 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 mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer this container for recycling, if available.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

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

Nonrefillable container. Do not reuse or refill the container.

[Alternative container statement: Nonrefillable container. Do not reuse the 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) the container promptly after emptying.

[Optional label text: For containers not equipped with pumping systems,] Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank. Fill the container ¼ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth for 30 seconds, ensuring at least one complete revolution. 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 mix-tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

[Alternative or additional triple rinsing instructions for large containers equipped with pumping systems: [Optional label text: For large containers equipped with pumping systems,] Triple rinse as follows: Empty the remaining contents into application equipment or 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. Repeat this procedure two more times.]

Pressure rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic [Optional text: agricultural] pesticide containers can be taken to a container collection site or picked up for recycling. [Alternative container disposal statement: Then offer the container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to the container, if available. If no recycling information is available on the container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location.]

[Optional container disposal statement: To find the nearest collection site, contact your chemical dealer or Monsanto Company at 1-800-768-6387] [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

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

[Optional additional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling – Call 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)]

[Optional additional container disposal statement: IBC EMPTY? – FREE CALL – 1-888-SCHUETZ (1-888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statement: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

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

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

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

To clean the container before final disposal, empty the remaining contents from this container into application equipment or 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.

[Optional container disposal statement: Then offer this container for recycling, if available.]

[Optional container disposal statement: Some container manufacturers offer container recycling. See additional information regarding manufacturer recycling programs attached to this container, if available. If no recycling information is available on this container, contact your chemical dealer or Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] to find the nearest recycling location.]

[Optional additional container disposal statement: IBC EMPTY? – FREE CALL – 1-888-SCHUETZ (1-888-724-8389) www.schuetz.net/ticket; Schuetz ticket service]

[Optional additional container disposal statement: FREE IBC PICKUP] [For continental USA and Canada only]

[Optional additional container disposal statements: RETURNnet SYSTEM – To return empty IBC's Email or Call – www.returnnetsystem.com – 1-888-758-SHIP – United States and Canada (1-888-758-7447 – IBCNA – Clarkston, Michigan – USA]

[Optional container disposal statement: To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)].

[Optional container disposal statement: Return Properly Rinsed Container to Monsanto for Recycling – Call 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)]

#### 5.0 PRODUCT INFORMATION

**Product Description:** This product is a postemergence, systemic herbicide that, when mixed in the spray tank with a surfactant that is approved for aquatic use, may be used for both aquatic and terrestrial weed control. This product provides broad-spectrum control of many annual and perennial weeds, woody brush, trees and vines. This product does not control submerged weeds or provide residual weed control in soil. It is formulated as a water-soluble liquid that, unless otherwise directed, requires dilution with water or another carrier and the addition of a surfactant according to label directions and intended use site before application using standard and specialized pesticide application equipment.

**Mechansim 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:** This product binds tightly to soil particles and does not provide residual weed control. Weeds must be emerged at the time of application to be controlled by foliar application of this product. Weed seeds in the soil will not be affected by this product and will continue to germinate. Unattached plant rhizomes and rootstocks beneath the soil surface will also not be affected by this product.

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

**Stage of Weeds:** Aquatic weeds must have foliage above the water surface in order to be controlled by this product. On terrestrial sites, annual and perennial weeds are easiest to control when they are small. See the "WEEDS CONTROLLED" section of this label for more information on the control of specific weeds.

**Cultural Considerations:** Reduced weed control could result when this product is applied to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to re-grow prior to application. Always use the highest application rate of this product within the given range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control could result when this product is applied to weeds that show signs of disease or insect damage, are covered with dust, or are surviving under poor growing conditions.

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

**Rainfastness:** Rainfall or submersion of aquatic weeds by wave action within 4 hours of application could wash this product off of the foliage and a second application might be needed for acceptable weed control. Refer to specific use sections of this label for additional information on minimum intervals required before re-application of this product.

**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 after application. Extremely cool or cloudy weather following application could slow activity of this product and delay development of visual symptoms.

**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 allowable 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 in 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.

Unless otherwise specified on this label, the combined total of all applications of this product on a site must not exceed 8 quarts (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, crops or other desirable vegetation, 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 mechanism of action classification system of the Weed Science Society of America. Any weed population can contain plants that are naturally resistant to Group 9 herbicides. Weeds resistant to Group 9 herbicides can be effectively managed by using another herbicide from a different Group (either alone or in a mixture according to label directions), by using other cultural or mechanical methods of weed control, or a combination of the two. Consult your local company representative, state cooperative extension agent, professional consultant or other qualified authority to determine appropriate actions for controlling specific resistant weeds.

## 6.1 Weed Management Practices

Resistant populations arise when rare individual plants are uncontrolled by a normal dose of a given herbicide under normal environmental conditions. In the absence of other control measures these individuals survive, produce seed, and eventually become the dominant biotype in the field through continuous selection. The best means of reducing this selection is to use diverse weed control practices such as multiple herbicides with different mechanisms of action, and often in combination with various mechanical and cultural practices.

To minimize the occurrence of herbicide-resistant biotypes, including those resistant to glyphosate, implement the following weed management practice options that are practical to your situation. These management practices are applicable to reduce the spread of confirmed resistant biotypes (managing existing resistant biotypes) and to reduce the potential for selecting for resistance in new species (proactive resistance management).

- Use a diversified approach toward weed management focused on preventing weed seed production and reducing the number of weed seeds in the soil.
- Plant crops into fields that are as weed-free as possible and then keep them as weed-free as possible.
- Plant seed that is as weed-free as possible.
- Scout fields and application sites routinely, before and after herbicide application.
- Use multiple herbicide mechanisms of action that are effective against the most troublesome weeds at your application site and against those with known resistance.
- Apply herbicides at application rates listed on the label when weeds are within the size range indicated on the label.
- Emphasize cultural practices that suppress weeds by using crop competitiveness.
- Use mechanical and biological weed management practices, where appropriate.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules.
- Manage weed seed at harvest and after harvest to prevent a buildup of the weed seedbank.

## 6.2 Management of Glyphosate-Resistant Biotypes

Appropriate testing is needed to determine if a weed is resistant to glyphosate. Call 1-800-768-6387 [Alternative telephone numbers: 1-800-ROUNDUP (1-800-768-6387)] or contact your Monsanto Company representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet at www.weedresistancemanagement.com or www.weedscience.org.

Glyphosate-resistant weeds can be controlled or managed by applying this product in combination with residual preemergence herbicides and/or other postemergence herbicides labeled for control of the targeted weed in the crop being grown or on the site of application. For more information, see the "WEEDS CONTROLLED" section of this label.

Since the occurrence of resistant weeds is difficult to detect prior to use, Monsanto Company accepts no liability for any losses that result from the failure of this product to control resistant weeds.

#### 7.0 MIXING

Spray solutions of this product may be mixed, stored and applied using 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.

A 50-mesh nozzle screen or line strainer on the spray equipment is adequate.

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

## 7.1 Mixing with Water

PERFORMANCE OF THIS PRODUCT 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.

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. Foaming of the spray solution can occur during mixing. To prevent or minimize foaming, mix gently, terminate by-pass and return lines at the bottom of the tank and, if necessary, add an appropriate anti-foam or defoaming agent to the spray solution.

#### 7.2 Surfactant

Unless otherwise directed, this product requires the addition of 2 or more quarts of a nonionic surfactant that is labeled for use with herbicides [Optional label text, if applicable: and approved for aquatic use] per 100 gallons of spray solution (0.5% or more by volume). Unless otherwise directed, use a higher concentration of surfactant when any of the following conditions apply to the use of this product:

- Adding surfactants that contain less than 70 percent active ingredient
- Making a broadcast application using a high carrier volume or using handheld spray equipment
- Applying under adverse growing conditions or anytime weeds are under stress
- Applying as a tank-mix with other products
- Applying to hard-to-control weeds, woody brush, trees and vines

[Optional label text to be used if surfactants that are not approved for aquatic use are allowed with this product: NOTE: For direct application of spray solutions of this product on emerged aquatic weeds or for use in intertidal areas below the mean high-water mark, or in application areas where a buffer that will ensure no overspray of an adjacent body of water cannot be maintained, a surfactant that is also approved for aquatic use must be used. For terrestrial applications, surfactant is also needed in the spray solution, but does not have to be approved for aquatic use.]

[Optional label text to be used if surfactants that are not approved for aquatic use are allowed with this product: RESTRICTION: If a surfactant that is NOT approved for aquatic use is added to the spray solution, DO NOT apply directly to or over water or use in intertidal areas below the mean high-water mark.]

Check with your local State agency with primary responsibility for regulating pesticides for additional information about surfactants that are approved for aquatic use.

Read and follow all precautionary statements and directions for use on the surfactant label.

All reference throughout this label to concentration of surfactant in the spray solution is on a percentageof-volume basis. Refer to the table below to achieve the appropriate concentration of surfactant in the spray solution.

	Amount of Surfactant to Achieve Indicated Concentration in Spray Solution (percent by volume)					
Desired Volume of Spray Solution	0.5%	0.75%	1%	1.5%	4%	8%
1 gallon	2/3 fl oz	1 fl oz	1.3 fl oz	2 fl oz	5 fl oz	10 fl oz
25 gallons	16 fl oz	24 fl oz	1 qt	1.5 qts	4 qts	2 gals
100 gallons	2 qts	3 qts	1 gal	1.5 gals	4 gals	8 gals

2 tablespoons = 1 fluid ounce (fl oz)

#### 7.3 Tank Mixtures

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control in the soil, a broader weed control spectrum or an alternative mechanism of action.

NOT ALL TANK-MIX PRODUCTS LISTED ON THIS LABEL ARE APPROVED FOR USE ON AQUATIC SITES. Refer to each individual label for all products in the tank mixture for approved use sites and application rates.

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

Monsanto Company has not tested all tank-mix product formulations for compatibility, antagonism or reduction in product performance. Mixing this product with herbicides or other materials not specified on this label could result in reduced performance of this product. To the extent consistent with applicable law, buyer and all users are responsible for any 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 on separate supplemental labeling or Fact Sheets published for this product.

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 any application timing restrictions, soil restrictions, minimum re-cropping intervals and/or crop rotation restrictions. Use according to the most restrictive precautionary statements for each product in the tank mixture.

This product may be applied at any rate listed on this label in a tank mixture with the following products to provide preemergence and/or improved postemergence control of weeds listed on the individual product labels.

2,4-D; atrazine; dicamba; bromacil; diuron; imazapyr; metsulfuron methyl; oryzalin; pendimethalin, prodiamine; simazine; sulfosulfuron; trichlopyr

Arsenal; Arsenal Herbicide Applicators Concentrate; Banvel; Banvel 480; Barricade 4L; Barricade 65WG; Certainty® Turf; Chopper Gen2; Crossbow; Endurance; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XLT Specialty; Gallery SC; Gallery 75 Dry Flowable Specialty; Garlon

3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Goal 2XL; GoalTender; Habitat; Hyvar X; Hyvar X-L; Karmex DF; Krenite S Brush Control Agent; Krovar I DF; Landmark; Landmark XP; Oust Extra; Oust XP; Outrider®; Plateau; Poast; Poast Plus; Ronstar 50 WSP; Ronstar Flo; Ronstar G; Sahara DG; Spike 20P Specialty; Spike 80 DF Specialty; Stalker; Surflan AS Specialty; Surflan Flex; Surflan Flex T&O; Surflan XL 2G; Surflan Pro; Telar XP; Tordon 101 Mixture Specialty; Tordon 22K Specialty; Tordon K Herbicide Specialty; Transline Specialty; Vanquish; Velpar DF CU; Velpar DF VU; Velpar L CU; Velpar L; Velpar L VU

When used in combination as described on this label and to the extent consistent with applicable law, the liability of Monsanto shall in no manner extend to any damage, loss or injury not solely and directly caused by the inclusion of the Monsanto product in such combination use.

## 7.4 Tank-Mixing Procedure

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

Add individual tank-mix components to the tank as follows: wettable powders; flowables; emulsifiable concentrates; drift reduction additives; water soluble liquids (this product); nonionic surfactants. Ensure that the tank-mix products are well mixed in the spray solution before adding this product.

Mix only the quantity of spray solution that will be applied that day. Application of tank-mix solutions that are allowed to stand overnight could result in reduced weed control.

Maintain gentile agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, agitate thoroughly to resuspend the mixture before resuming application.

Keep by-pass line on or near the bottom of the tank to minimize foaming.

A 50-mesh nozzle screen or line strainer on the spray equipment is adequate.

## 7.5 Mixing Spray Solution Concentrations

All reference throughout this label to concentration of this product in a spray solution is on a percentageof-volume basis.

Prepare the desired volume of spray solution at a given concentration by mixing the amount of this product indicated in the following table with water.

	Amount of [INSERT BRAND NAME] to Achieve Indicated Concentration in Spray Solution					
Desired Volume of		(percent by volume)				
Spray Solution	0.5%	0.75%	1%	1.5%	4%	8%
1 gallon	2/3 fl oz	1 fl oz	1.3 fl oz	2 fl oz	5 fl oz	10 fl oz
25 gallons	16 fl oz	24 fl oz	1 qt	1.5 qts	4 qts	2 gals
100 gallons	2 qts	3 qts	1 gal	1.5 gals	4 gals	8 gals

2 tablespoons = 1 fluid ounce (fl oz)

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

#### 7.6 Ammonium Sulfate [This section optional in final printed label]

Unless otherwise directed, the addition of 1 to 2 percent dry ammonium sulfate by weight (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.

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 could reduce the 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 application equipment types, except wiper applicators, sponge bars and controlled droplet applicators (CDA). When a drift reduction additive is used, read and carefully follow all precautions, limitations and all other information appearing on the product label. The use of drift reduction additives can affect spray coverage, which could result in reduced performance of this product.

#### 8.0 APPLICATION EQUIPMENT AND TECHNIQUES

This product may be applied using the following equipment:

**Aerial Application Equipment**—fixed-wing and helicopter [Alternative text: helicopter only] [Optional text: (Aerial application allowed by helicopter only in] [list states where aerial application is allowed by helicopter only, if applicable.])

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

**Handheld Sprayers**—backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers\*, lances and other handheld 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**—recirculating sprayer, shielded and hooded sprayers, wiper applicator, sponge bar, single or hollow stem injectors, tree injector, spray bottle

**Injection Systems**—aerial or ground injection sprayers

**Controlled Droplet Applicator (CDA)**—handheld 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 ACCURATELY DELIVERING DESIRED VOLUMES.

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

#### 8.1 Spray Drift Management

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, [Optional text: GREEN] STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, [Optional text, if applicable: EXCEPT AS DIRECTED FOR USE ON ROUNDUP READY® CROPS], AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

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

AVOID DRIFT. USE EXTREME CARE TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHEN APPLYING THIS PRODUCT.

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

The likelihood of injury occurring as the result of spray drift while applying 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 generation of fine particles (mist) that are likely to drift.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFERS MUST BE MAINTAINED.

AVOID APPLYING THIS PRODUCT AT EXCESSIVE SPEED OR SPRAYER PRESSURE.

## 8.2 Aerial Application Equipment

Unless otherwise prohibited, all broadcast applications of this product 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 on separate supplemental labeling published for this product.

DO NOT APPLY THIS PRODUCT USING AERIAL APPLICATION EQUIPMENT EXCEPT UNDER CONDITIONS SPECIFIED ON THIS LABEL OR ON SEPARATELY PUBLISHED SUPPLEMENTAL LABELING FOR THIS PRODUCT.

[Optional voluntary label restriction: Aerial application of this product may be made using helicopters only.]

[Optional voluntary label restriction: Aerial application of this product may be made using helicopters only in] [list states where aerial application is permitted by helicopter only, if applicable].

FOR SPECIFIC USE INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS RELATED TO THE AERIAL APPLICATION OF THIS PRODUCT IN CALIFORNIA OR SPECIFIC COUNTIES THEREIN, REFER TO THE LIMITATIONS ON AERIAL APPLICATION IN THAT STATE OR COUNTY PRESENTED IN THIS SECTION.

Apply this product at the rate specified on this label in 3 to 25 gallons of water per acre, unless otherwise directed. Use a larger spray volume within this range where weeds, brush, trees and vines are dense or form multiple canopy layers.

Avoid direct application to any body of water.

Drift control reduction additives may be used.

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.

#### **AERIAL SPRAY DRIFT MANAGEMENT**

The following drift management requirements must be followed to minimize off-target drift movement during aerial application. [Optional label text, if applicable: These requirements do not apply to forestry applications.]

- 1. The distance of the outermost nozzles on the boom must not exceed <sup>3</sup>/<sub>4</sub> the length of the [Optional text, if application using fixed-wing aircraft allowed: wingspan or] rotor.
- 2. Nozzles must always point backwards parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they must be followed.

## **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, such as in windy, high temperature with low humidty, and/or inversion conditions as described below.

## **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:** Operate at a spray pressure towards the lower end of the range 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 provides 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 ¾ of the [Optional text, if application using fixed-wing aircraft allowed: 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 tallest 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 in the presence of a crosswind, the swath will be displaced downwind. Therefore, on the upwind 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 at wind speeds of between 2 and 10 miles per hour. However, many factors, including droplet size and equipment type, determine drift potential at any given wind 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 must be familiar with local wind patterns and how they affect drift.

## **Temperature and Humidity**

When making an application in low relative humidity, set application 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 this product during a temperature inversion as drift potential is high under these conditions. Temperature inversions restrict vertical air mixing, which causes small droplets to remain suspended 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 non-target areas (e.g., residential areas, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from a sensitive area).

## State Specific Limitations on Aerial Application

## LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY

[Optional voluntary restriction: Aerial application of this product in California may be made by helicopter only.]

DO NOT apply this product using aerial application equipment in residential areas.

AVOID DRIFT – DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT OF THIS PRODUCT ONTO ANY VEGETATION TO WHICH APPLICATION WAS NOT INTENDED CAN CAUSE DAMAGE. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, USE PROPER AERIAL APPLICATION EQUIPMENT FITTED WITH APPROPRIATE NOZZLES AND MAINTAIN ADEQAUATE BUFFERS.

Follow the directions below when making an aerial application near non-target crops, desirable annual vegetation, or desirable perennial vegetation after bud break and before total leaf drop.

- Do not apply this product within 100 feet of all desirable vegetation or non-target crops.
- 2. If winds are blowing up to 5 miles per hour TOWARD desirable vegetation or non-target crops, do not apply this product within 500 feet of the desirable vegetation or crops.
- 3. If winds are blowing between 5 and 10 miles per hour TOWARD desirable vegetation or non-target crops, a buffer zone greater than 500 feet might be needed to protect the desirable vegetation or crops.
- 4. Do not apply this product using aerial application equipment when winds are blowing in excess of 10 miles per hour.
- 5. Do not apply this product using aerial application equipment when inversion conditions exist.

When tank-mixing this product with 2,4-D, only 2,4-D amine formulations may be applied in California using aerial application equipment. Tank mixtures of this product with 2,4-D amine formulations may

be applied by air in California on fallow fields and in reduced tillage systems [Optional text, if applicable: and for alfalfa and pasture renovation applications] only.

This product, when tank-mixed with dicamba, may not be applied by air in California.

# ADDITIONAL LIMITATIONS ON AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY

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

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

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 Directions**

Written directions MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. These written directions 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.

For additional information on the proper aerial application of this product in Fresno County, call (800) 332-3111.

#### 8.3 Ground Application Equipment

Apply this product at the appropriate rate as specified on this label in 3 to 40 gallons [Alternative volume: 10 to 60 gallons] of water per acre when making a broadcast application using ground application equipment, unless otherwise directed on this label or on separate supplemental labeling or Fact Sheets published for this product. As the weed density increases, increase the spray volume toward the upper

end of this range to ensure complete coverage. Use nozzles that will avoid generating a fine mist. For enhanced results with ground application equipment, use flat-fan nozzles. Check spray pattern for uniform distribution of spray droplets.

## 8.4 Handheld Sprayers

When using a handheld sprayer, apply spray solutions of this product uniformly and completely to the foliage of target weeds using a coarse droplet spectrum and a spray-to-wet technique; do not spray to the point of runoff. For the appropriate concentration of this product in the spray solution and timing of application to control specific weeds, woody brush, trees and vines, refer to the "WEEDS CONTROLLED" section of this label.

For control of annual weeds, make application when weeds are small and prior to seedhead or bud formation. For control of perennial weeds, woody brush, trees and vines, make application after flowering and before fall color and leaf drop.

When making a low-volume directed spray application to annual and perennial weeds, woody brush, trees and vines using a handheld sprayer, ensure that at least 50 to 75 percent of the foliage or the top one-half of each unwanted plant is sprayed. If a straight stream nozzle is used, start the application at the top of the targeted plant and spray from top to bottom in a lateral zig-zag motion. To ensure uniform and complete coverage, spray both sides of large or tall woody brush, trees and vines, or when foliage is thick and dense, or where there are multiple sprouts. For enhanced results on woody brush, trees and vines, apply to actively growing vegetation after full leaf expansion and flowering, prior to fall color and leaf drop.

The following table summarizes various methods of foliar application using a backpack sprayer with a spray-to-wet or low-volume directed spray technique and high-volume sprayer application using handheld application equipment for control or partial control of herbaceous weeds, woody brush, trees and vines listed in the "WEEDS CONTROLLED" section of this label.

Method of Application	Spray Solution Concentration	Spray Volume
Handgun or Backpack Sprayer	0.5 to 1.5% by volume	Spray-to-wet technique
Low-Volume Directed Spray (Backpack)	4 to 8% by volume	15 to 25 gallons/acre
Modified High-Volume Spray	1.5 to 3% by volume	40 to 60 gallons/acre

Low-volume directed spray application with a backpack sprayer works best when applying to weeds and brush less than 10 feet tall. For taller weeds and brush, a high-volume handgun can be modified by reducing the nozzle size and spray pressure to produce a modified high-volume directed spray application.

## 8.5 Selective Application Equipment

Selective application equipment allows this product to be applied to weeds growing near a crop or other desireable vegetation without killing the desireable vegetation. Selective application equipment must be capable of preventing all contact of the herbicide solution with the desirable vegetation and operated without spray mist escape, leakage or dripping of the herbicide solution.

AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION. Contact of this product with desirable vegetation could result in unwanted plant damage or destruction. To the extent consistent with applicable law, such damage shall be the sole responsibility of the applicator.

This product may be diluted with water and applied using a recirculating sprayer, shielded sprayer, hooded sprayer, wiper applicator or sponge bar to weeds listed on this label growing in any aquatic or on any terrestrial non-food or non-feed crop site listed on this label, where feasible. This product may also

be used with sprayers equipped with optical weed sensor technology. Other selective equipment that may be used to deliver or apply this product are single and hollow stem injectors, tree injectors, wiper applicators for cut stem and cut stump applications, and spray or squirt bottles for cut stem, cut stump and frill applications to control large stem weeds, brush, trees and vines listed on this label.

## **Recirculating Sprayer**

A recirculating sprayer directs the spray solution onto weeds growing above desirable vegetation, while spray solution that is not intercepted by weeds is collected and returned to the spray tank for reapplication. A recirculating sprayer may be used to apply spray solutions of this product to weeds listed on this label in any aquatic or on any terrestrial non-crop site described on this label.

## **Shielded and Hooded Sprayers**

A shielded sprayer directs the herbicide solution to the target weeds while protecting desirable vegetation from coming into contact with the herbicide spray with an impervious material or shield. Use nozzles that provide uniform coverage within the application area. Keep shields properly adjusted to protect desirable vegetation.

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 desirable vegetation from the spray solution.

This product may be diluted with water and, unless otherwise directed, mixed with a surfactant and applied using a shielded or hooded sprayer to weeds listed on this label growing in any aquatic or on any terrestrial non-crop site listed on this label, where feasible, and between rows of plants (row middles) in any cropping system listed on this label.

Properly adjust the hood to protect desirable vegetation. Ensure that the hood is capable of completely enclosing the spray pattern. If necessary when applying around crops grown on raised beds, extend the front and rear flaps of the hooded sprayer downward to reach the ground in deep furrows.

A hooded sprayer 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 or other desirable vegetation, causing damage to or destruction of the desirable vegetation. 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 runoff down the inside of the hood, 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.

The following procedures will help reduce the potential for injury to desirable vegetation when using a hooded sprayer:

- Operate the sprayer with the hood on the ground or skimming across the ground surface.
- Leave at least an 8-inch untreated strip over the drill row. (For example, if a crop row width is 38 inches, use a sprayer hood with a maximum width of 30 inches.)
- Operate at a ground speed no greater than 5 miles per hour to minimize bouncing of the hooded sprayer.
- Apply when wind speed is 10 miles per hour of less.
- Use low-drift nozzles that provide uniform coverage within the application area.

Injury to a crop or other desirable vegetation can occur when application is made to foliage of weeds that come into direct contact with the desirable vegetation. Do not apply this product when leaves of desirable

vegetation are growing in direct contact with weeds. 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 or solutions of this product directly onto the weed or cut stump. Any handheld device that is capable of physically wiping this product or solutions of this product directly onto the target weed or stump, such as a paint brush, may be used.

A mechnical wiper applicator, such as a rope wick or sponge bar that can be driven through a field over the top of a crop or other desireable vegetation to control weeds that are taller than the desirable vegetation, must be designed, maintained and operated to prevent the herbicide solution from coming into contact with desirable vegetation.

Wiper applicators may be used over the top of food or feed crops ONLY if specifically permitted for use over that crop by this label or by separately published supplemental labeling for this product.

When using a mechanical wiper applicator, adjust the height of the applicator to ensure adequate contact with the weeds and so that the wiper contact point is at least 2 inches above the crop or desirable vegetation. Enhanced 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 that do not come into contact with the herbicide solution will not be affected. Poor contact can occur when weeds are growing in dense clumps, when operating in areas of severe weed infestation, or when weed height varies dramatically. In these situations, more than one application of this product might be necessary.

Operate wiper applicators at a ground speed of no greater than 5 miles per hour. Performance in areas of heavy weed infestation can be improved by reducing speed, which will provide more time for resaturation of the wiper with the herbicide solution and more contact time of the wiper with the weed. Enhanced results with a wiper applicator can be obtained when two applications are made traveling in opposite directions in the field.

Keep wiper surfaces clean.

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. 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 apply this product using a wiper applicator when weeds are wet.

Add a nonionic surfactant to a concentration of 10 percent by volume of the total applicator solution (one gallon of surfactant for every 10 gallons of solution) for use in a wiper applicator. See the "MIXING" section of this label for more information on the use of surfactants.

For Rope Wick and Sponge Bar Applicators – apply solutions ranging from 33 to 75 percent of this product by volume in water.

For Panel Applicators – apply solutions ranging from 33 to 90 percent of this product by volume in water.

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.

## Single and Hollow Stem Injectors

Control of certain weeds listed in the "WEEDS CONTROLLED" section can be obtained by injecting this concentrated product or solutions of this product directly in or onto the target weed. Ensure that the

handheld injector being used for this application is capable of accurately delivering the volume specified on the label. When making stem injections, the combined total use of this product must not exceed 8 quarts per acre per year. At 5 milliliters of concentrated (undiluted) product per stem, 8 quarts will treat approximately 1500 stems per acre per year. The number of stems that can be treated per acre will vary depending on the injection volume and the concentration of this product in the application solution.

## 8.6 Injection Systems

This product may be used in aerial and ground injection spray systems as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this concentrated product with the undiluted concentrate of other products when using injection systems, unless otherwise directed. A non-ionic surfactant concentration of 0.5% or more in the spray stream is required for use of this product in injection systems.

## 8.7 Controlled Droplet Applicator (CDA)

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

A controlled droplet applicator produces a spray pattern that is not easily visible. Use extreme care to avoid spray or drift from contacting the foliage or any other tissue of desirable vegetation, as plant damage or destruction could result.

#### 9.0 AQUATIC AND TERRESTRIAL USE SITES

This product may be used according to the directions for use described on this label to control weeds, woody brush, trees and vines listed on this label growing in aquatic environments and on any terrestrial site described on this label.

#### 9.1 Aquatic Sites

This product may be used to control emerged weeds, brush, trees and vines in all flowing, non-flowing or transient bodies of fresh and brackish surface water. These bodies of water include lakes, rivers, streams, ponds, estuaries, rice paddies, seeps, irrigation and drainage ditches, canals, reservoirs, wetlands and wastewater treatment facilities. This product may also be used to control weeds in intertidal areas below the mean high-water mark and on terrestrial sites where bodies of water may be present and a buffer that will ensure no overspray of the water cannot be maintained.

When applying spray solutions of this product in or near aquatic sites, a nonionic surfactant that is labeled for use with herbicides and approved for direct application to bodies of water must be used. See the "MIXING" section of this label for more information on the use of surfactants with this product.

Before using this product for aquatic weed control or for terrestrial weed control near aquatic sites, read the following information carefully.

- This product does not control plants that are completely submerged or have a majority of their foliage under water.
- There is no restriction on the use of water for irrigation, recreation or domestic purposes following direct application of this product to emerged aquatic plants.
- Consult your local State agency with primary responsibility for regulating pesticides, State fish and wildlife agency and/or water control authority before applying this product to vegetation growing in public waters to determine if a permit is required.
- Do not apply this product directly to water within 0.5 mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 0.5 mile of an active potable water intake in a standing body of water, such as a lake, pond or reservoir. To make aquatic applications around and

within 0.5 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds that would permit the turning off of an active potable water intake for a minimum period of 48 hours after the application. This restriction does NOT apply to intermittent inadvertent overspray of water on terrestrial use sites.

- To achieve maximum weed control in dry ditches, apply this product within 1 day after water drawdown to ensure application to actively growing weeds and allow a minimum of 7 days after application before reintroduction of water
- Floating mats of vegetation could require more than one application of this product for control. Avoid washing this product off of foliage after application by boat backwash or rainfall within 4 hours of application. Wait a minimum of 24 hours before re-applying this product to the same vegetation.
- Application of this product to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in the water.
- When making a bankside application, do not overlap more than 1 foot into open water.
- Do not apply this product to bodies of water where emerged weeds do not exist.
- If applying this product to more than 20 percent of the total area of a body of water, do not apply more
  than 3.75 quarts per acre in any single broadcast application. If applying to less than 20 percent of
  the total area of a body of water, any rate listed on this label may be applied. This single application
  rate restriction does not apply to stream crossings in utility rights-of-way.
- When emerged weed infestations cover the total surface area of an impounded waterbody, apply this
  product to the emerged vegetation in strips to help avoid oxygen depletion in the water due to
  decaying vegetation. Oxygen depletion in the water can result in increased fish mortality.

TANK MIXTURES: This product may be applied in a tank mixture with one or more of the following products for enhanced control of aquatic weeds, woody brush, trees and vines in aquatic sites, provided that the product used is labeled for aquatic use. Refer to the individual label of all products used in the tank mixture for approved uses and application rates. Always read and follow label directions for each product in the mix.

2,4-D amine; imazapyr; flumioxazin; triclopyr

Clipper; Garlon 3A Specialty; Habitat

### 9.2 TERRESTRIAL SITES

This product may be used according to the directions for use described on this label to control weeds, woody brush, trees and vines listed on this label on any terrestrial site described on this label.

This product may be used to control weeds, woody brush, trees and vines on maintained landscapes, on improved and unimproved land, on lawns and turf and around ornamentals on industrial, commercial and residential sites, including airports, apartment complexes, chaparrals, ditch banks, driveways, dry ditches, dry canals, farmsteads, fencerows, forestry sites, golf courses, greenhouses, lumber yards, manufacturing sites, municipal sites, natural areas, nurseries, office complexes, ornamental beds, parks, parking areas, pastures, petroleum tank farms, pumping installations, railroads, rangeland, recreational areas, residential areas, roadsides, schools, shadehouses, sod and turfgrass seed farms, sports complexes, storage areas, substations, utility rights-of-way, utility sites, warehouse areas, wildlife food plots and wildlife management areas.

This product may be used for non-selective control of unwanted vegetation on any site listed on this label for trim-and-edge application around objects, including around building foundations, equipment storage areas and trees, and along and in fences, and to eliminate unwanted weeds growing in and around established shrub beds and ornamental plantings. This product may also be used for complete elimination of vegetation from a terrestrial site prior to planting ornamentals, flowers, or turfgrass (sod or seed), and prior to land development, including prior to beginning construction projects or the laying of asphalt or other road material. Application of this product may be repeated, as needed, to maintain bare ground, up to a total application of 8 quarts per acre per year.

This product may be used for establishment and maintenance of fuel breaks, for establishing fire perimeters and black lines, along fire roads and to facilitate prescribed burning practices on any site described on this label.

[Optional label text: This product may also be used for weed control or growth regulation on] [Optional list of any terrestrial uses that are included on this Master Label, including, but not limited to: Christmas tree farms, citrus orchards, fallow vegetable fields, farmsteads, production nurseries, sugarcane fields, sod farms and turfgrass seed farms.]

This product requires the addition of a nonionic surfactant to the spray solution labeled for herbicide application. See the "MIXING" section of this label for more information on the use of surfactants with this product.

Unless otherwise directed, application of this product may be made according to the directions for use in the sections that follow on any of these sites using any method of application described on this label to control any weeds, woody brush, trees and vines listed in the "WEEDS CONTROLLED" section of this label. [Alternative label text: Unless otherwise directed, application of this product may be made according to the directions for use in the sections that follow on any of these sites using any method of application described on this label to control any weeds, woody brush, trees and vines listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label.]

### 10.0 ADDITIONAL SITE MANAGEMENT INFORMATION

The following sections contain additional use information specifically related to certain use sites. Unless otherwise directed, any application of this product described in the "WEEDS CONTROLLED" section or any other section of this label may be made on the use sites described in the sections that follow, where applicable, using any method of application described on this label that is appropriate.

#### 10.1 Forestry, Hardwood and Christmas Tree Site Management

This product may be used for control or partial control of woody brush, trees and herbaceous weeds on any tree site, including forestry settings, Christmas tree plantations, and silvicultural and production nursery sties, using any method of application listed on this label. See the "WEEDS CONTROLLED" section of this label for application rates and specific use directions.

Unless otherwise directed, this product requires a nonionic surfactant that is labeled for the intended use on the site of application to be added to the spray mixture. Use of this product without a surfactant will result in reduced performance. See the "MIXING" section of this label for more information on the use of surfactants with this product.

**IMPORTANT:** SOME SURFACTANTS CAN CAUSE TREE INJURY WHEN DIRECTLY APPLIED TO SOME SPECIES. READ AND FULLY UNDERSTAND ALL APPROVED USES, PRECAUTIONS AND LIMITATIONS OF THE SURFACTANT BEFORE USING.

Weed Management, Site Preparation

This product may be used to control or partially control undesirable woody brush, trees, vines and herbaceous weeds listed on this label for preparing sites prior to planting any tree species, including Christmas trees, eucalyptus trees and hybrid tree cultivars, and for controlling weeds around established trees, [Optional text: for the release of conifer and hardwood trees,] establishing wildlife openings and maintaining roads on any tree site.

TANK MIXTURES: This product may be applied in a tank-mix with the products listed in this section to increase the spectrum of vegetation controlled. Any application rate of this product listed on this label may be used in a tank-mix with the following products for tree site management, including site preparation, provided that the product is labeled for the use on the site of application and prior to planting the desired species. Refer to the individual label of all products used in the tank mixture for approved uses and application rates. Read and follow all directions for use and precautions for each product used, including planting interval restrictions, if any. Use this product according to the most restrictive precautionary statements of any product in the mix.

imazapyr; metsulfuron methyl; sulfometuron methyl; triclopyr

Arsenal; Arsenal Herbicide Applicators Concentrate; Chopper; Chopper GEN2; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Landmark; Landmark XP; Oust Extra; Oust XP

For control of herbaceous weeds, apply these tank-mix products at the lower end of the application rate range specified on the product label. For control or partial control of dense stands or for hard-to-control woody brush, trees and vines, apply these products at a rate or spray solution concentration towards the higher end of the given range.

### Conifer Release, Mid-Rotation Conifer Release, Hardwood Release, Timber Stand Improvement

This product may be applied as a directed spray using a handheld sprayer or using any selective application equipment described on this label to control woody and herbaceous weeds and other undesirable understory vegetation below the tree crop canopy in conifer plantations, hardwood sites, Christmas tree plantations and silvicultural and ornamental nurseries to facilitate the release and growth of conifer and hardwood trees.

This product may also be applied using ground broadcast equipment or as a directed spray application for mid-rotation release under the canopy of pines, other conifers and hardwoods.

PRECAUTIONS: Avoid contact of spray drift, mist or drips with foliage, green bark or non-woody surface roots of desirable plant species. Use application techniques that prevent or minimize contact of this product with foliage of desired trees or other plants through direct contact or off-target spray movement.

[Optional label text: RESTRICTIONS: Do not apply this product as an over-the-top broadcast spray for conifer or hardwood release, unless otherwise directed on this label or on separate supplemental labeling for this product.]

#### Conifer Release - Broadcast Application [This section is optional in the final printed label]

This product may be broadly applied over the top of conifer tree species listed in this section after formation of final conifer resting buds in the fall or prior to initial bud swelling in the spring for control, partial control or suppression of herbaceous weeds and hardwoods listed in the "WEEDS CONTROLLED" section of this label to facilitate the release of these tree species in a forestry, plantation or nursery setting. Unless otherwise directed, make this application only where conifers have been established for a minimum of one growing season.

PRECAUTIONS: Conifer injury can occur when this product is applied at rates higher than prescribed on this label, where spray applications overlap, if application is made when conifers are actively growing, or

when they are growing under stress from drought, flood, improper planting or insect, animal or disease damage.

#### Conifer Release Outside the Southeastern United States

For release of the following conifer species growing for a minimum of one growing season in most areas outside the southeastern United States, apply 24 to 48 fluid ounces of this product per acre as a broadcast application over the top of the conifer trees.

Douglas fir

Hemlock

California redwood

• Fir species

Pines\*

Spruce

Apply 24 to 40 fluid ounces of this product for release of Douglas fir, pine and spruce that have been established for only one growing season (except in California).

For release of spruce (Picea spp.) in Maine, Michigan, Minnesota, New Hampshire and Wisconsin, up to 2.25 quarts of this product may be applied after formation of final resting buds in the fall for control of woody brush and tree species.

PRECAUTIONS: Ensure that the conifers are well hardened off before application of this product. Some nonionic surfactants can cause tree injury when broadly applied over the top of hemlock and California redwood and in mixed conifer stands. Test the nonionic surfactant to be used for tree safety before using.

#### Conifer Release in the Southeastern United States

For release of the following conifer species established for more than one growing season in the southeastern United States, apply 36 to 60 fluid ounces of this product per acre in the fall as a broadcast application over the top of the trees. For release of these species after only one growing season, apply only 24 fluid ounces of this product per acre.

- Eastern white pine
- Slash pine

- Loblolly pine
- Longleaf pine Shortleaf pine
- Virginia pine

TANK MIXTURES: This product may be applied for conifer release in a tank-mix with the following products to provide a broader spectrum of postemergence weed control and for residual control of weeds listed on the label of those products. Only apply these tank mixtures over the top of conifer species that are approved for this use for all products in the mix. Refer to the individual product labels for approved uses and application rates. Read and follow all directions for use and precautions for each product used. Use this product according to the most restrictive precautionary statements of any product in the mixture.

atrazine; imazapyr; metsulfuron methyl; sulfometuron methyl

Arsenal; Arsenal Herbicide Applicators Concentrate; Oust Extra; Oust XP

For release of Douglas fir established for a minimum of one growing season prior to bud swell in early spring, apply 24 fluid ounces of this product in a tank-mix with an appropriate rate of atrazine. Do not add surfactant for this application.

For herbaceous release of loblolly pine, Virginia pine and longleaf pine in the spring and early summer, apply 12 to 18 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Oust Extra or Oust XP.

#### Late-Summer and Fall after Resting Bud Formation

For release of jack pine, white pine and white spruce, apply 24 to 48 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Oust Extra or Oust XP that will not harm these conifer species.

<sup>\*</sup> Includes all species except loblolly pine, longleaf pine, shortleaf pine or slash pine.

For release of Douglas fir, apply 24 to 36 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Arsenal or Arsenal Herbicide Applicators Concentrate.

For release of balsam fir and red spruce, apply 48 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Arsenal or Arsenal Herbicide Applicators Concentrate.

### 10.2 Native and Wildlife Habitat Management

This product may be used to control exotic and other undesirable vegetation in wildlife habitat and natural areas, including riparian and estuarine areas, rangeland, and wildlife refuges. Application may be made to allow recovery of native plant species or prior to planting desirable native species, and for similar broad-spectrum vegetation control. Spot treatment, cut stump, cut stem, stem injection, wiper applicator and all other methods of application listed on this label may be used to selectively remove unwanted plants for habitat management and enhancement.

This product may also be used to eliminate 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 naturally. If tillage is needed to prepare a seedbed, wait a minimum of 7 days after application before tilling to allow translocation of this product into underground plant parts.

# 10.3 Ornamental and Production Nursery Management

All uses of this product described on this label may be used in a plant nursery setting using any method of application described.

This product may be used to clear an area of unwanted vegetation prior to planting any ornamental plant, tree, shrub or other plants.

This product may also be used to control weeds growing around established woody ornamental species, such as arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product may also be used to trim and edge around potted plants and other objects in a plant nursery.

PRECAUTIONS: Protect desirable plants from the spray solution using shields or coverings made of waterproof material. Take care to avoid contact of spray, drift or mist with foliage, green stems or immature bark of established ornamental species.

#### Greenhouse/Shadehouse

This product may be used to control weeds growing in and around greenhouses and shadehouses.

RESTRICTIONS: Desirable vegetation must not be present during application in a greenhouse. Turn air circulation fans off before applying this product inside a greenhouse or shadehouse and leave them off until the application solution has dried.

# 10.4 Commercial, Residential and Recreational Area Management

All applications of this product described on this label may be used on commercial, residential and recreational areas, including parks, schools and athletic fields, using any method of application described on this label, including spot treatment of unwanted vegetation, trim-and-edge application around trees, fences, walking paths, buildings, sidewalks, nature trails and other objects in these areas, to eliminate unwanted weeds growing in established shrub and ornamental beds, for turf management and renovation, and to eliminate vegetation from a site prior to development, including prior to planting an area to ornamentals, flowers or turfgrass (sod or seed), or beginning construction projects.

# 10.5 Pasture Management

The use of this product in pastures includes use on bahiagrass, bermudagrass, bluegrass, brome, fescue, guineagrass, kikuyugrass, orchardgrass, pangola grass, ryegrass, Timothy, and wheatgrass.

# Preplant, Preemergence, Pasture Renovation

This product may be applied prior to planting or emergence of forage or perennial grasses. Refer to the "WEEDS CONTROLLED" section of this label for application rates of this product for control of specific weeds.

RESTRICTIONS: If the total application rate of this product is 2.25 quarts per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts per acre, remove domestic livestock before application and wait a minimum of 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 taller growing weeds. For enhanced weed control, remove domestic livestock before application to allow for sufficient plant growth and wait a minimum of 7 days after application before grazing livestock or harvesting for feed. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: For spot treatment or use with a wiper applicator at rates of 2.25 quarts per acre or less, this product may be applied over the entire pasture or any portion of it. At rates greater than 2.25 quarts per acre, this product may be applied over no more than 10 percent of the total pasture at any one time. Application may be repeated in the same area at 30-day intervals.

# **Weed Suppression in Dormant Pastures**

This product may be applied in dormant pastures to suppress competitive growth and seed production of annual weeds and other undesirable vegetation. Apply 9 to 12 fluid ounces of this product per acre using broadcast application equipment on pastures in late-fall after desirable perennial grasses have reached dormancy or in late-winter before desirable perennial grasses break dormancy and initiate green growth.

PRECAUTIONS: Higher application rates may be used for hard-to-control weeds; however, higher rates can cause stand reduction. Some stunting of perennial grasses can occur if broadcast application is made when they are not dormant.

RESTRICTIONS: No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2.25 quarts of this product per acre per year onto pasture grasses except for renovation. If reseeding is needed due to severe stand reduction, no waiting period is required after application of this product before seeding the pasture grasses listed at the beginning of this section; for all other pasture grasses, wait a minimum of 30 days after application before seeding.

### 10.6 Railroad Management

All uses of this product described in the "WEEDS CONTROLLED" or any other section of this label may be used on railroad sites using any method of application described.

This product requires a nonionic surfactant that is labeled for the intended use on the site of application to be added to the spray mixture. If application is to be made where aquatic sites might be directly sprayed or inadvertently oversprayed, the surfactant must be labeled for aquatic use. Use of this product without a surfactant will result in reduced performance. See the "MIXING" section of this label for more information on the use of surfactants with this product.

Application of this product along railroad rights-of-way may be made in up to 80 gallons of spray solution per acre.

### Bare Ground, Ballast and Shoulders, Crossings, Spot Treatment

This product may be used to maintain bare ground on railroad ballast and shoulders and reduce the need for mowing and mechanical brush removal along railroad rights-of-way. Application of this product may be

repeated as weeds continue to emerge in order to maintain bare ground, up to a maximum total application rate of 8 quarts of this product per acre per year.

TANK MIXTURES: This product may be applied in a tank mixture with the following products for enhanced control of woody brush and trees for bare ground, ballast and shoulder, crossing and spot treatment applications, and other brush, tree and vine control on railroad sites, provided that the product used is labeled for these applications. Not all tank-mix products listed are labeled for aquatic use. Refer to the individual label of all products used in the tank mixture for approved uses and application rates. Always read and follow label directions for each product in the mix.

2,4-D; atrazine; bromacil; chlorsulfuron; clopyralid; dicamba; diquat; diuron; hexazinone; imazapyr; metsulfuron methyl; pelargonic acid; simazine; sulfometuron methyl; sulfosulfuron; tebuthiuron; triclopyr

Arsenal; Arsenal Herbicide Applicators Concentrate; Chopper; Chopper Gen2; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Habitat; Hyvar X; Hyvar X-L; Krovar I DF; Oust Extra; Oust XP; Outrider<sup>®</sup>; Princep 4L; Princep Caliber 90; Princep Liquid; Sahara DG; Scythe; Stalker; Spike 20P Specialty; Spike 80DF Specialty; Telar XP; Transline Specialty; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Vastlan Specialty

### **Brush, Tree and Vine Control**

This product may be used to control woody brush, trees and vines along railroad rights-of-way. Apply 3 to 8 quarts of this product per acre in up to 80 gallons of spray solution containing 0.5% or more by volume of a nonionic surfactant as a broadcast application using either a boom or boomless sprayer. Apply a 0.75- to 1.5-percent solution of this product when using high-volume application equipment with a spray-to-wet technique, or a 4- to 8-percent solution when using low-volume directed spray for spot treatment.

TANK MIXTURES: This product may be applied in a tank-mix with one or more of the following products for enhanced control of woody brush, trees and vines along railroad rights-of-way, provided that the product is labeled for use on these sites. Refer to the individual product label for approved sites and application rates.

chlorsulfuron; clopyralid; dicamba; fosamine; hexazinone; imazapyr; metsulfuron methyl; picloram; triclopyr

Arsenal; Arsenal Herbicide Applicator's Concentrate; Chopper; Chopper Gen2; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Habitat; Krenite S Brush Control Agent; Stalker; Telar XP; Tordon 101 Mixture Specialty; Tordon 22K Specialty; Tordon K Herbicide Specialty; Transline Specialty; Vanquish; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Vastlan Specialty

### Weed Control in Dormant and Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds in dormant and actively growing bermudagrass along railroad rights-of-way. See the "WEEDS CONTROLLED" section of this label for directions for use of this product for weed control in grasses.

## 10.7 Rangeland Management

This product will control or suppress many annual weeds growing on perennial cool- and warm-season grass rangeland. Slight discoloration of the desirable grasses could occur, but will re-green and resume growing under moist soil conditions as effects of this product wear off.

Preventing seed production is critical to the control of invasive annual grassy weeds on rangeland. Yearly application of this product to eliminate invasive annual weeds before they produce seed will help eliminate viable weed seeds from the soil. Delay grazing of the area after application of this product to allow desirable perennials to grow, flower and re-seed the area.

**Bromus Control**: A broadcast application of 9 to 12 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 on rangeland. For enhanced results, apply this product when most brome plants are in early-flower and before the plants, including seedheads, turn color. Allow for secondary weed flushes to occur after spring rains to further deplete the seed reserve in the soil and encourage perennial grass conversion on weedy sites. Apply this product in the fall in areas where spring moisture is normally limited and fall germination allows for good weed growth and weed seed depletion.

**Medusahead Control:** To control or suppress medusahead, apply 12 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 of this product will eliminate the thatch layer produced by slowly decaying culms. Allow new weed growth to occur before applying this product after a burn. Repeat this application annually to eliminate medusahead seeds in the soil and allow desirable perennial grasses to repopulate the area.

RESTRICTIONS: Do not apply more than 2.25 quarts of this product per acre per year on rangeland. Do not use ammonium sulfate when applying this product on rangeland grasses. No waiting period between application of this product and feeding or livestock grazing is required.

### 10.8 Roadside Management

All uses of this product described on this label may be used for weed management along roadways, including weed control in dormant and active bermudagrass and bahiagrass, weed control along shoulders and under and around guardrails, signposts and other objects along the road, using any method of application described on this label. If applying this product in areas where the spray solution could inadvertently overspray a body of surface water, a non-ionic surfactant approved for aquatic use must be used. See the "MIXING" section of this label for more information on the use of surfactants with this product.

TANK MIXTURES: This product may be tank-mixed with the following products for shoulder, guardrail, spot treatment and maintaining bare ground applications, provided that the product used is labeled for use on these sites. Not all tank-mix products listed are labeled for aquatic use. Refer to the individual product labels for approved uses and application rates.

2,4-D; atrazine; bromacil; chlorsulfuron; clopyralid; dicamba; diuron; fosamine; hexazinone; imazapic; imazapyr; metsulfuron methyl; oryzalin; oxadiazon; pendimethalin; picloram; prodiamine; simazine; sulfometuron; sulfosulfuron; triclopyr

AAtrex 4L; AAtrex Nine-O; Banvel; Barricade 65WG; Chopper; Chopper Gen2; Crossbow; Direx 4L; Escort XP; Endurance; Formula 40; Gallery 75 Dry Flowable Specialty; Gallery SC; Garlon 4; Garlon XRT; Hyvar X; Karmex DF; Krenite S Brush Control Agent; Krovar I DF; Landmark; Landmark XP; Oust Extra; Oust XP; Outrider<sup>®</sup>; Pendulum 3.3 EC; Pendulum AquaCap; Pendimax 3.3; Plateau; Poast; Poast Plus; Princep 4L; Ronstar 50 WSP; Ronstar Flo; Ronstar G; Sahara DG; Surflan AS Specialty; Surflan Flex; Surflan Flex T&O; Surflan Pro; Surflan XL 2G; Telar XP; Tordon K; Vanquish; Vastlan Specialty; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Weedar 64

# 10.9 Utility Management

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, access roads and railroads, and along similar rights-of-way that run in conjunction with utilities, for spot treatment of unwanted vegetation, side-trimming, trim-and-edge application around objects, weed control prior to planting a utility site to ornamentals, flowers or turfgrass (sod or seed), turf management, to eliminate unwanted weeds growing in established shrub or ornamental beds, to prepare or establishing wildlife openings and for eliminating vegetation prior to beginning construction projects. Application of this product may be repeated as needed to maintain bare ground as weeds continue to emerge, up to a maximum application rate of 8 quarts per acre per year.

TANK MIXTURES: This product may be tank-mixed with the following products for use on utility sites, provided that the product is labeled for use on these sites. Not all tank-mix products listed are labeled for aquatic use. Refer to the individual product label for approved uses and application rates. For control of herbaceous weeds, use a lower application rate or spray solution concentration within the given ranges for these tank-mix products and increase the rate or concentration toward the higher end of the ranges for control of dense stands or hard-to-control woody brush, trees and vines.

2,4-D; atrazine; bromacil; chlorsulfuron; clopyralid; dicamba; diuron; fosamine; hexazinone; imazapic; imazapyr; metsulfuron methyl; oryzalin; pendimethalin; prodiamine; simazine; sulfometuron methyl; sulfosulfuron; triclopyr

AAtrex 4L; AAtrex Nine-O; Arsenal Herbicide Applicators Concentrate; Endurance; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XLT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Hyvar XL; Krenite S Brush Control Agent; Krovar I DF; Oust Extra; Oust XP; Outrider<sup>®</sup>; Plateau; Sahara DG; Surflan AS Agricultural; Surflan AS Specialty; Surflan Flex; Surflan Flex T&O; Surflan XL 2G; Telar XP; Transline Specialty; Vanquish; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Vastlan Specialty; Weedar 64

Ensure that the Garlon product 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 tank-mix compatibility problems.

For enhanced results with side-trimming, apply this product in a tank-mix with one of the Garlon products listed above.

#### 11.0 CROP USES [This section is optional]

[Any crop use listed in the Directions for Use with Food Crops section of this Master Label may be included on this sub-label for aquatic and terrestrial use]

#### 12.0 WEEDS CONTROLLED

Read the entire label before proceeding to use this product.

Unless otherwised directed, this product requires the addition of a nonionic surfactant that is labeled for use with herbicides to the spray solution. See the "MIXING" section of this label for more information on the use of surfactants with this product.

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

Poor weed control could be realized if application is made to weeds covered with dust. For weeds that have been mowed, grazed or cut, allow re-growth to occur prior to application of this product.

Refer to the sections that follow for application rates and timing of application for the control of annual and perennial weeds and woody brush, trees and vines.

### 12.1 Weed Control, Renovation and Chemical Mowing in Turf

The use of this product described in this section may be applied to turfgrass growing on any terrestrial site listed on this label. Ensure that any tank-mix product applied with this product is labeled for the intended use and on the site of application.

### **Weed Control in Dormant Bermudagrass and Bahiagrass**

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass prior to spring green-up in areas where these turfgrasses are desirable ground covers and some temporary injury or discoloration can be tolerated.

Apply 6 to 48 fluid ounces of this product in 10 to 40 gallons of water per acre when bermudagrass and bahiagrass are dormant and prior to spring green-up.

Application of more than 12 fluid ounces of this product per acre on highly maintained bermudagrass and bahiagrass turf, such as golf courses and lawns, could result in injury or delayed green-up in the spring.

For residual weed control in dormant bermudagrass and bahiagrass, this product may be tank-mixed with Outrider<sup>®</sup>, Oust Extra or Oust XP herbicides. Apply 6 to 48 fluid ounces of this product in a tank-mix with an appropriate rate of Outrider, Oust Extra or Oust XP herbicide in 10 to 40 gallons of water per acre. To avoid delays in green-up and minimize injury, apply no more than 1 ounce of Oust Extra or Oust XP herbicide per acre on bermudagrass and no more than 0.5 ounce on bahiagrass, and avoid application when these grasses are in a semi-dormant condition.

DO NOT apply this product in a tank-mix with Outrider, Oust Extra or Oust XP herbicides on highly maintained bermudagrass and bahiagrass turf, such as on golf courses and lawns.

### **Weed Control in Actively Growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds in actively growing bermudagrass. Some bermudagrass injury could result from the application of this product, but the bermudagrass will recover under moist conditions once the effects of the product wear off. Use only on well-established bermudagrass where some temporary injury or discoloration can be tolerated.

Apply 12 to 36 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Use a lower application rate within this range when controlling annual weeds less than 4 inches tall (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. At these application rates, this product will provide partial control of the following perennial weeds in actively growing bermudagrass:

Bahiagrass

Fescue, tall

Trumpetcreeper

Bluestem, silver

Johnsongrass

Vaseygrass

PRECAUTIONS: Applying more than 12 fluid ounces of this product per acre on highly maintained bermudagrass, such as on golf courses and lawns, could cause unacceptable turf injury and discoloration.

For a broader weed control spectrum in actively growing bermudagrass, this product may be tank-mixed with Outrider, Oust Extra or Oust XP herbicides. Apply these tank-mixtures only on well-established bermudagrass where some temporary injury or discoloration can be tolerated. Make no more than one application of this product in these tank mixtures in the same season, otherwise the bermudagrass could be severely injured.

Apply 6 to 24 fluid ounces of this product per acre in a tank-mix with Outrider herbicide for control or partial control of Johnsongrass and other weeds listed on the Outrider herbicide label. Use a higher

application rate of both products within the given ranges for control of annual or perennial weeds greater than 6 inches tall.

Apply 12 to 24 fluid ounces of this product per acre in a tank-mix with Oust Extra or Oust XP herbicide per acre for enhanced control of weeds listed on those labels. Use a lower application rate of each product within the given ranges to control annual weeds listed on the labels that are less than 4 inches tall (or runner length) and increase the rates toward the upper end of the ranges as annual weeds increase in size and approach the flower or seedhead stage. This tank-mix will provide partial control of the following perennial weeds in actively growing bermudagrass:

- Bahiagrass
- Dallisgrass
- Fescue, tall
- Trumpetcreeper

- Ballagrass
   Bluestem, silver
   Dock, curly
   Dockpoint
- Johnsongrass
- Vaseygrass

- Broomsedge
- Dogfennel
- Poorioe
- · Vervain, blue

PRECAUTIONS: Apply these tank mixtures only on well-established bermudagrass where some temporary injury or discoloration can be tolerated. DO NOT apply this product in a tank mixture with Outrider or Oust herbicides on highly maintained bermudagrass, such as on golf courses and lawns.

### **Weed Control in 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 2 to 3 fluid ounces per acre about 45 days later. Make no more than two growth suppression applications per year.

For broad spectrum weed control in actively growing bahiagrass, this product may be tank-mixed with Outrider<sup>®</sup>, Oust Extra or Oust XP herbicides.

Apply 1.5 to 3.5 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Outrider herbicide per acre to control perennial weeds or annual weeds greater than 4 inches in height.

Apply 4 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Oust Extra or Oust XP herbicide 1 to 2 weeks following an initial spring mowing for enhanced control of weeds listed on the Oust herbicide label in actively growing bahiagrass. Make this application only once per year.

PRECAUTIONS: Apply these tank mixtures only on well-established bahiagrass where some temporary injury or discoloration can be tolerated.

#### **Turf Renovation**

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 until after determining if any re-growth of underground plant parts will occur. Where repeat applications are necessary, sufficient re-growth must be attained prior to re-application of this product. Summer or fall application provides enhanced control of warm-season grasses, such as bermudagrass. For managed turfgrass, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray solution.

This product has no residual soil activity and will not affect plants, seed or sod planted back into the area after application.

A handheld sprayer may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast application or spot treatment using a handheld sprayer may be used to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS: Do not disturb soil or underground plant parts before application of this product. Delay tillage and renovation techniques, such as vertical mowing, coring or slicing, a minimum of 7 days after application to allow translocation of this herbicide into underground plant parts.

RESTRICTIONS: If application rates total 2.25 quarts of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

#### **Chemical Mowing**

This product may be used to suppress growth of perennial and annual grasses to serve as a substitute for mowing.

<u>Perennial Grasses</u> – apply 5 fluid ounces of this product per acre to suppress growth of Kentucky bluegrass, or 6 fluid ounces to suppress tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass in 10 to 40 gallons of spray solution per acre after grasses have greened up to at least 75 percent green color in the spring, or 7 to 10 days after mowing when sufficient re-growth has occurred to provide a desirable height for growth regulation. Use chemical mowing only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

<u>Annual Grasses</u> – apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre to suppress growth of some annual grasses, such as annual ryegrass, wild barley and wild oats when actively growing in coarse turf on roadsides or other industrial areas and before the seedheads are in the boot stage of development. This application could injure the desired annual grasses.

PRECAUTIONS: Use this product for chemical mowing only in areas where some temporary injury or discoloration of perennial and annual grasses can be tolerated.

#### 12.2 Annual Weeds

Annual weeds are easiest to control when they are small and actively growing. New leaf development indicates active growth.

To control or partially control the annual weeds listed in this section when they are less than 6 inches in height or runner length and actively growing, apply 24 fluid ounces of this product per acre. If they are over 6 inches in height or runner length, or slowly growing under stressed conditions, increase the application rate to 1 to 4 quarts per acre, depending on weed height and the severity of the poor growing conditions.

For application using a handheld sprayer with a spray-to-wet technique, apply a 0.5-percent solution of this product to annual weeds less than 6 inches in height or runner length prior to seedhead formation in grasses or bud formation in broadleaf weeds. To control annual weeds over 6 inches tall, or even smaller weeds growing under stressed conditions, apply a 0.75- to 1.5-percent solution. Apply the maximum concentration of this product within this range for hard-to-control weeds or to control weeds over 24 inches tall.

For control of annual weeds using a handheld controlled droplet applicator (CDA), apply a 15-percent solution of this product (19 to 20 fluid ounces of this product per gallon of spray solution) at a flow rate of 2 fluid ounces of spray solution per minute and a walking speed of 1.5 miles per hour (1 quart of spray solution per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in this section, in 2 to 15 gallons of water per acre.

For enhanced control, do not mow, cut, till, burn or disturb vegetation in the application area for a minimum of 3 days after application.

This product has no residual soil activity and does not control emergence of new annual weeds from seed. Subsequent applications of this product will be needed to control weeds that continue to emerge.

### **WEED SPECIES**

Anoda, spurred

Balsam apple<sup>1</sup>

Barley

Barley, little

Barnyardgrass

Bassia, fivehook

Bittercress

Bluegrass, annual

Bluegrass, bulbous

Brome, downy

Brome, Japanese

Broomsedge

Buttercup

Castor bean<sup>2</sup>

Cheatgrass

Cheeseweed (Malva parviflora)

Chervil

Chickweed

Cocklebur

Copperleaf, hophornbeam

Copperleaf, Virginia

Coreopsis, plains/tickseed

Corn

Crabgrass

Cupgrass, woolly

Dwarf dandelion

Eclipta

False dandelion

Falseflax, smallseed

Fiddleneck

Filaree

Fleabane, annual

Fleabane, hairy (Conyza bonariensis)

Fleabane, rough

Foxtail

Foxtail, Carolina

Geranium, Carolina

Goatgrass, jointed

Goosegrass

Groundsel, common

Henbit

Horseweed/Marestail (Conyza canadensis)

Itchgrass

Johnsongrass, seedling

Junglerice

Knotweed

Kochia

Lambsquarters

Lettuce, prickly

Mannagrass, eastern

Mayweed

Medusahead

Morning glory (*Ipomoea* spp)

Mustard, blue

Mustard, tansy

Mustard, tumble

Mustard, wild

Nightshade, black

Oats

Panicum, browntop

Panicum, fall

Panicum, Texas

Pennycress, field

Pepperweed, Virginia

Pigweed

Puncturevine

Purslane. common

Pusley, Florida

Ragweed, common

Ragweed, giant

Rice, red

Rocket, London

Rocket, yellow

Rye

Ryegrass

Sandbur, field

Sesbania, hemp

Shattercane

Shepherd's-purse

Sicklepod

Signalgrass, broadleaf

Smartweed, ladysthumb

Smartweed, Pennsylvania

Sorghum, grain (milo)

Sowthistle, annual

Spanish needles<sup>3</sup>

Speedwell, corn

Speedwell, purslane

Sprangletop

Spurge, annual

Spurge, prostrate

Spurge, spotted

Spurry, umbrella

Starthistle, yellow

Stinkgrass

Sunflower

Teaweed / Prickly sida

Thistle, Russian

Velvetleaf

Wheat

# Wild oats Witchgrass

#### 12.3 Perennial Weeds

Enhanced control of perennial weeds can be obtained when this product is applied when target weeds are small and actively growing. New leaf development indicates active growth. If application of this product must be made to larger weeds or to weeds that are slowly growing under stressful conditions, apply at a rate or spray solution concentration towards the upper end of the specified range.

If weeds have been mowed or tilled, do not apply this product until plants have resumed active growth and have reached the specified stage of growth or sufficient growth has been achieved to allow for good interception of the spray solution. For enhanced control, do not mow, cut, till, burn or disturb vegetation in the application area for a minimum of 7 days after application.

For control of perennial weeds listed on this label using backpack or handheld equipment and a low-volume application technique, apply a 4- to 8-percent solution of this product over the crown of the target plant to cover 50 percent of the upper plant foliage.

For control of perennial weeds using a handheld controlled droplet applicator (CDA), apply a 15- to 30-percent solution of this product (19 to 38 fluid ounces of this product per gallon of spray solution) at a flow rate of 2 fluid ounces of spray solution per minute and a walking speed of 0.75 mile per hour (2 to 4 quarts of spray solution per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in the following table, in 2 to 15 gallons of water per acre.

Application of this product in the fall must be made before a killing frost.

This product has no soil activity and does not control emergence of perennial weeds from seed and dormant underground roots, rhizomes or tubers present in the soil at the time of application. More than one application of this product will be necessary for continued control of weeds that emerge following application.

#### PERENNIAL WEEDS RATE TABLE

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Alfalfa*	0.7	1.5
Alligatorweed* Apply this product when most of the target plants are needed to achieve control.	3 in bloom. More than o	1.3 ne application will be
Anise (fennel)	1.5 – 3	1 – 1.5
Bahiagrass	2.3 – 3.75	1.5
Beachgrass, European Apply a 3.5-percent solution of this product using a spr	– ay-to-wet technique or	3.5 an 8-percent solution

Apply a 3.5-percent solution of this product using a spray-to-wet technique or an 8-percent solution using a low-volume application technique. Enhanced results can be obtained when application is made onto target weeds that are actively growing at the boot through the full-heading stage of development.

<sup>&</sup>lt;sup>1</sup> For control of balsam apple, apply this product using handheld equipment only.

<sup>&</sup>lt;sup>2</sup> Control of castor bean can also be achieved by injecting 4 milliliters of this concentrated (undiluted) product per plant into the lower portion of the main stem.

<sup>&</sup>lt;sup>3</sup> For control of Spanish needles, apply 48 fluid ounces of this product per acre.

	Broadcast Rate	Handheld Spray-to-Wet Concentration
Weed Species	(quarts/acre)	(% solution)
Make application prior to the loss of more than 50 pe application site and re-apply this product to any target we seeding the area with desirable vegetation.		
For selective control of European beachgrass, apply a 3 1 to 2.5 percent of a nonionic surfactant during period Maximizing the amount of individual leaf tissue contacted pass in the opposite direction will improve control. desirable vegetation.	od of active growth used by the wiper applicat	ng a wiper applicator. or or making a second
Bentgrass*	1	1.5
Bermudagrass Make application when seedheads are present.	4	1.5
Bermudagrass, water (knotgrass)	1	1.5
<b>Bindweed, field</b> For control, apply 3 to 3.75 quarts of this product per Mississippi River and 2.3 to 3 quarts per acre east of beyond full bloom. For enhanced results, apply in late-su	the Mississippi River w	
Bittersweet, Oriental For control of oriental bittersweet, apply this product as solution containing 0.25 percent of a nonionic surfactan acre. Use a nonionic surfactant concentration of 0.5 to sprayer and a spray-to-wet application. For enhanced replant with the spray solution.	t and 0.1 percent nonic 2 percent by volume v	onic organosilicone per when using a handheld
Bluegrass, Kentucky	1.5 – 2.3	0.75
Apply when most target plants have reached the boot to is made prior to the boot stage, reduced control can reshave turned brown.		
Blueweed, Texas Apply 3 to 3.75 quarts of this product per acre west of the	2.3 – 3.75 e Mississippi River and	
east of the Mississippi River when most target plants results, apply in late-summer or fall.	are at or beyond full	bloom. For enhanced
east of the Mississippi River when most target plants	2.3 – 3	bloom. For enhanced  0.75 – 1
east of the Mississippi River when most target plants results, apply in late-summer or fall.  Brackenfern	2.3 - 3 long. 1.5 - 2.3 I the boot to head stage	0.75 – 1  0.75 of development. When

Apply this product when target plants are actively growing and are at or beyond the early to full bloom

2.3 - 3.75

0.75

Apply this product when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application

before plants have turned brown.

Cattail

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
stage of development. Enhanced results are achieved fall months.	when application is made	during the summer o
Clover; red, white	2.3 - 3.75	1.5
Cogongrass Apply this product in late-summer or fall when cogo growing. Due to uneven stages of growth and the den one application might be necessary to achieve control.	se nature of cogongrass	
Cordgrass  Prior to application of this product for control of corde beds exist within the application area. If shellfish are application of this product until after harvest or maintain and commercial shellfish beds, or do not harvest supplication of this product. See restrictions below. Ideal conditions for control of cordgrass are when targe growing, and good spray coverage is achievable. The cordgrass will reduce the performance of this product plants prior to application and allow a minimum of 4 how. Where cordgrass has been cut or mowed prior to applying this product to ensure adequate interception and the plant in tidewater within 4 hours after application. Apply 2 to 8 quarts of this product per acre using gequipment in 5 to 100 gallons of spray solution, or in susing aerial application equipment. Apply a 5- to 8-handheld backpack sprayer or high-volume sprayer. control of cordgrass in a spray solution containing 0.25 spray solution) of a nonionic surfactant or other adjutabled for use with herbicides and approved for use complete coverage of cordgrass clumps.  RESTRICTIONS: If a minimum 50-foot buffer is recommercial shellfish beds, there is no restriction on she	re intended to be harvestern a 50-foot buffer between shellfish for a minimum set plants are free of silt and the presence of debris or set. To improve herbicide users for plants to dry before and uptake of this product. It is could reduce the effective ground broadcast applicated to 10 gallons of spray set percent solution of this percent solution of this percent want that is compatible to a quant that is compatible to a quantal polication. The maintained between the nellfish harvest. If applicate the shellfish harvest.	ed in the area, delay in the application area of 14 days following and debris and actively silt on the surface of ptake, wash targeted applying this product ient re-growth before Rainfall or immersion ness of this product, ion or optical senso plution per acre where the product when using a first per 100 gallons of with this product and anced results, ensure application area and ion is made within 50
feet of commercial shellfish beds, DO NOT harvest application of this product.  Cutgrass, giant*	3	1 14 days following
More than one application of this product will be vegetation is partially submerged in water. Allow targ before making next application.	required to achieve cont	rol, especially where
Dallisgrass	2.3 – 3.75	1.5
	2.5 – 5.75	1.0
Dandelion	2.3 – 3.75	1.5

2.3 - 3.75

1.5

enhanced results, make application in late-summer or fall.

Fescue (except tall)

	Broadcast	Handheld Spray-to-Wet
Weed Species	Rate (quarts/acre)	Concentration (% solution)
Fescue, tall Apply this product when most target plants have reached the prior to the boot stage, less than desirable control might be ob	2.3 boot to head stage of	1
Guineagrass Apply this product when most target plants have at least reach	2.3 ned the 7-leaf growth s	0.75 tage.
Hemlock, poison Control can also be achieved by injecting 5 milliliters of a 5 handheld injection device in one leaf cane per plant, 12 inche required.		
Hogweed, giant	_	_
Inject 5 milliliters of a 5-percent solution of this product into on the root crown. No surfactant is required.	one leaf cane per plan	nt, 12 inches above
Horsenettle	2.3 - 3.75	1.5
Horseradish Apply this product when most target plants have reached the For enhanced results, apply in late-summer or fall.	3 late-bud to flower stage	1.5 ge of development.
Horsetail, field Inject 0.5 milliliter of this product per stem directly into the crown. No surfactant is required.	_ plant stem, one segm	ent above the root
Iceplant	1.5	1.5
Iris, yellow flag Cut flower stems 8 to 9 inches above the root crown. Push then slowly remove it as you inject 0.5 milliliter of this product is required.		
Ivy; cape, German	1.5 – 3	0.75 – 1.5
Jerusalem artichoke	2.3 - 3.75	1.5
Johnsongrass Apply this product when most target plants have reached th before plants have turned brown in the fall. When applied priresult.		
Kikuyugrass	1.5 – 2.3	0.75
Knapweed Apply this product when most target plants have reached the enhanced results, apply in late-summer or fall.	3 e late-bud to flower st	1.5 tage of growth. For
Knotweed; Bohemian, giant, Japanese Apply 3 quarts of this product per acre as a broadcast applic with 0.5 to 1 percent by volume of a nonionic surfactant. For a spray-to-wet technique, apply a 2-percent solution of this volume of a nonionic surfactant. For enhanced control, do not for a minimum of 7 days after application.  Control can also be achieved by cutting stems cleanly just bell and immediately apply 0.36 fluid ounce (10 milliliters) of a 50	application using a bac product containing 0 disturb vegetation in t ow the 2nd or 3rd node	ckpack sprayer and 1.5 to 2 percent by the application area above the ground

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
into the "well" or remaining internode. Ensure that the upper gathered and properly discarded to prevent new plants from probio-barrier, such as cardboard, plywood or plastic sheeting, with material. The combined total application rate of this product me	opagating from sprout Il help guard against ust not exceed 8 quar	ing buds. Use of a the spread of plant ts per acre. <sup>1</sup>
Control can also be achieved by injecting 5 milliliters of this p internode using a handheld injection device. No surfactant is	roduct per stem into required.	the second or third
Lantana Apply this product when most target plants are at or beyond th spray solution concentration on plants that have reached the way.		
Lespedeza	2.3 - 3.75	1.5
Loosestrife, purple Apply this product when most target plants are at or beyond results can be achieved when application is made during sumbe made before a killing frost.		
Lotus, American Apply this product when most target plants are at or beyond results can be achieved when application is made during sumbe made before a killing frost. More than one application of the re-growth of underground plant parts and seeds.	mer or fall months. Fa	all application must
Maidencane More than one application of this product will be needed for c submerged in water. Allow plants to re-grow to the 7- to10-leaf		
Milkweed, common Apply this product when most target plants have reached the la	2.3 ite-bud to flower stage	1.5 e of growth.
Muhly, wirestem  Make application when most target plants are at least 8 i development) and actively growing.	1.5 - 2.3 nches in height (3-	0.75 to 4-leaf stage of
Mullein, common	2.3 – 3.75	1.5
Napiergrass	2.3 – 3.75	1.5
Nightshade, silverleaf Apply 3 to 3.75 quarts of this product per acre as a broadcast and 2.3 to 3 quarts per acre east of the Mississippi River wher bloom. Enhanced results can be obtained when application is have formed.	n most target plants a	re at or beyond full
Nutsedge; purple, yellow Apply this product to control existing nutsedge plants and attact are in flower or when new nutlets can be found at rhizome tip not be controlled and will require repeated application of this pr	s. Nutlets that have	not germinated will
Orchardgrass Make application when most target plants have reached the boapplied prior to the boot stage, less than desirable contro application before plants have turned brown.		
Pampas grass	2.3 - 3.75	1.5

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Para grass	3	0.75
More than one application of this product will be needed to ach grow to the 7- to 10-leaf stage before making next application.	•	
Pepperweed, perennial	3	1.5
Phragmites* For partial control of phragmites in Florida and the countie Mexico, apply 3.75 quarts of this product per acre as a broadusing a handheld sprayer. In other areas of the U.S., apply application or, for partial control, apply a 0.75-percent solution results, make application in late-summer or fall when plants are to the dense nature of this vegetation (which can prevent good growth, more than one application of this product might be symptoms of control will be slow to develop.	cast application or a 2 to 3 quarts per a using a handheld spr e actively growing an d spray coverage) an	1.5-percent solution cre as a broadcast ayer. For enhanced d in full bloom. Due d uneven stages of
Quackgrass Apply this product when most target plants are at least 8 development) and actively growing.	1.5 - 2.3 inches in height (3-	0.75 to 4-leaf stage of
Redvine*	1.5	1.5
Reed; common, giant	3 – 3.75	1.5
For enhanced results make application in late-summer or fall.  Control can also be achieved by injecting 5 milliliters of this into the second or third internode using a handheld injection de-	concentrated product	(undiluted) directly s required.
Ryegrass, perennial Apply this product when most target plants have reached the applied prior to the boot stage, reduced control can result. In turns brown.		
Salvinia, giant	3 – 3.75	2
Apply a 2-percent solution of this product containing 0.5 to 2 per approved for aquatic use and containing at least 70 percent technique. For broadcast application, apply 3 to 3.75 quarts of spray solution containing 0.1 percent by volume nonionic of spreader sticker surfactant approved for aquatic use.  Allow a minimum of 3 days after application before disturbing product will not control plants that are completely submerged of	ent active ingredient of this product per acr organosilicone and 0.2 g vegetation in the a	using spray-to-wet e in 3 to 40 gallons 25 percent nonionic pplication site. This
Smartweed, swamp	2.3 – 3.75	1.5
Spatterdock Make application when most target plants are in full bloom. For or fall.	3 or enhanced results, a	0.75 apply in the summer
Spurge, leafy*	_	1.5
Starthistle, yellow	_	1.5
Sweetpotato, wild*  Make application when most target plants are at or beyond th application will be needed to achieve control.	e bloom stage of gro	1.5 wth. More than one
Thistle, artichoke	1.5 – 2.3	2

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Make application when target plants are a	at or beyond the bud stage of growth.	
Thistle, Canada	1.5 – 2.3	1.5
Make application when target plants are a	at or beyond the bud stage of growth.	
Operational control in the control of the control o	de attant. Out O to O at talle at aleate to a	and the second of the second of the second

Control can also be achieved by stem-injection. Cut 8 to 9 of tallest plants in a clump at bud stage. Push a cavity needle into the stem center and then slowly remove it as you inject 0.5 milliliter of this concentrated product into the stem.<sup>1</sup> No surfactant required.

Timothy 1.5 - 2.3 1.5

Make application when most target plants have reached the boot to head stage of development. If application is made prior to the boot stage, reduced control can result. In the fall, make application before plants turn brown.

**Torpedograss\*** 3 – 3.75 0.75 – 1.5

Apply this product at a lower rate or spray solution concentration within the specified range when torpedograss is growing on terrestrial sites and at a higher rate or concentration within the range when partially submerged under water or growing as a floating mat. Additional applications of this proudct will be needed to maintain control.

Trumpetcreeper*	1.5 – 2.3	1.5
Tules, common	_	1.5
Make application to target plants at or beyond the sough	and stage of development	Vieual eymptome

Make application to target plants at or beyond the seedhead stage of development. Visual symptoms will be slow to appear and might not appear for 3 or more weeks after application.

Vaseygrass	2.3 - 3.75	1.5
Velvetgrass	2.3 – 3.75	1.5
Waterhyacinth	2.5 – 3	0.75 – 1

Make application when target plants are at or beyond the early bloom stage of development. Visual symptoms might require 3 or more weeks after application to appear, with complete necrosis and decomposition not occurring until 60 to 90 days after application. Use a higher application rate within the given range when more rapid visual effects are desired.

**Waterlettuce** – 0.75 – 1

Apply a 1-percent solution of this product in areas of heavy infestation. Enhanced results can be obtained when applied from mid-summer through winter. Application in the spring could require more than one application to achieve control.

Waterprimrose – 0.75

Make application to target plants that are at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for enhanced control.

# Wheatgrass, western 1.5 - 2.3 0.75

Make application when most target plants have reached the boot to head stage of development. Application made prior to the boot stage could result in reduced control. In the fall, make application before plants turn brown.

<sup>\*</sup> Partial control

<sup>&</sup>lt;sup>1</sup> When using stem injection, the combined total use of this product must not exceed 8 quarts per acre per year. At 5 milliliters of concentrated (undiluted) product per stem, 8 quarts will treat approximately 1500 stems per acre per year. The number of stems that can be treated per acre will vary depending on the injection volume and the concentration of this product in the application solution.

Other perennials listed on this label – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast application or a 0.75- to 1.5-percent solution using a handheld sprayer.

### 12.4 Woody Brush, Trees and Vines

Apply this product to brush and trees that are actively growing after full leaf expansion, unless otherwise directed. Use a higher application rate within a given range for larger brush and trees and/or application in areas of dense vegetative growth. For control of vines, apply this product at a higher application rate or spray solution concentration within the given range when target plants have reached the woody stage of growth.

Enhanced control of woody brush and trees is obtained when application is made in late-summer or fall after fruit formation; however, in arid areas, enhanced control can be obtained when application is made in the spring to early-summer when brush and trees are at high moisture content and flowering. Poor control can be expected when this product is applied to drought-stressed brush and trees.

Some autumn color on undesirable deciduous species is acceptable when applying this product to brush and trees in the fall, provided no major leaf drop has occurred. Reduced performance of this product could result if fall application is made following a frost. Symptoms might not appear prior to frost or senescence following fall application.

For enhanced results, allow 7 or more days after application before mowing, cutting, tilling, burning or removal of woody brush, trees and vines from the application site. Additional applications of this product will be needed to control brush and trees regenerating from underground parts or seed.

TANK MIXTURES: This product may be applied at any rate stated on this label in a tank mixture with the following products to increase the spectrum of control of herbaceous weeds, woody brush, trees and vines. For control of herbaceous weeds, apply the tank-mix product at the lower end of the given application rate or spray solution concentration range. For control of dense stands or tough-to-control woody brush, trees and vines, increase the application rate or spray solution concentration of the tank-mix product towards the higher end of the range. Refer to the individual product labels for approved uses and application rates. Not all tank-mix products listed are labeled for aquatic use.

imazapyr; metsulfuron methyl; triclopyr

Arsenal; Arsenal Herbicide Applicators Concentrate; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Vastlan Specialty

Ensure that the proper amount of the Garlon herbicide is thoroughly mixed with water in the spray tank before adding this product.

### **Cut Stump Application**

This product may be used to control re-growth and re-sprouting of woody brush and trees on any site listed on this label.

Cut the woody brush or tree close to the soil or water surface and immediately apply a 50- to 100-percent (undiluted) solution of this product to the freshly-cut surface using an applicator capable of applying this product to the entire cambium. A delay in application could result in reduced performance. For enhanced results, cut the woody brush or tree during period of active growth and full leaf expansion and apply this product. No surfactant is needed for cut stump application.

For control of the tree of heaven (*Ailanthus altissima*), cut the tree close to the soil surface and immediately apply a 50-percent solution of this product (16 fluid ounces per quart of solution) and 10 percent Arsenal herbicide (3 to 4 fluid ounces per quart of solution) in water to the freshly-cut surface.

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, AS INJURY COULD OCCUR IN THE 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 adjacent stems or trees when this product is applied to one or more trees sharing common root system.

# **Woody Brush and Tree Injection and Frill Application**

This product may be used to control woody brush and trees listed in this section by injection or frill application on any aquatic and terrestrial site listed on this label.

Inject or apply the equivalent of 1 milliliter (0.04 fluid once) of this product for every 2 to 3 inches of trunk diameter at breast height (DBH). If injecting this product into the woody brush or tree, use equipment capable of penetrating into the living plant tissue under the bark. No surfactant is required for direct injection of this product into woody brush and trees.

For frill application, apply a 50- to 95-percent solution of this product in water, with 0.5% or more by volume of a nonionic surfactant, to either a continuous frill around the tree or to cuts evenly spaced around the tree below all branches. As tree diameter increases, enahnced results can be achieved by applying this product to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow this product to run out of the frill or cut areas. In species that freely exude sap, make the frill or cuts at an oblique angle to produce a cupping effect and apply a 95-percent solution of this product with a nonionic surfactant as described above. For enhanced results, make this application during period of active growth and after full leaf expansion.

### Modified High-Volume and Low-Volume Backpack Application

For control and partial control of woody bush, trees and vines listed on this label when using a backpack sprayer or other handheld equipment and a directed low-volume foliar application technique, apply a 4- to 8-percent solution of this product containing 0.5 to 1 percent by volume of a nonionic surfactant evenly over the plant crown to cover 50 percent of the upper foliage of undesirable woody brush, trees and vines.

## WOODY BRUSH, TREES AND VINES RATE TABLE

Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Alder	2.3 - 3	0.75 – 1.2
Ash*	1.5 – 3.75	0.75 – 1.5
Aspen, quaking	1.5 – 2.3	0.75 – 1.2
Bearclover (Bearmat)*	1.5 – 3.75	0.75 – 1.5
Beech*	1.5 – 3.75	0.75 – 1.5
Birch	1.5	0.75
Blackberry	2.3 – 3	0.75 – 1.2
Blackgum	1.5 – 3.75	0.75 – 1.5
Bracken	1.5 – 3.75	0.75 – 1.5
Broom; French, Scotch	1.5 – 3.75	1.2 – 1.5
Buckwheat, California*	1.5 – 3	0.75 – 1.5

Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Cascara*	1.5 – 3.75	0.75 – 1.5
Castor bean Also for control, inject 4 milliliters of this concentrated (ur lower portion of the main stem using a handheld injection de	1.5 – 3.75 ndiluted) product per evice. <sup>1</sup> No surfactant i	1.5 plant directly into the s required.
Catsclaw* For partial control, apply this product when at least 50 perce	_ nt of the new leaves a	1.2 – 1.5 re fully developed.
Ceanothus*	1.5 – 3.75	0.75 – 1.5
Chamise*	1.5 – 3.75	0.75
Cherry; bitter, black, pin	1.5 – 3.75	1 – 1.5
Cottonwood, eastern	1.5 – 3.75	0.75 – 1.5
Coyote brush For control, apply this product when at least 50 percent of the	2.3 – 3 se new leaves are fully	1.2 – 1.5 developed.
Cypress; swamp, bald	1.5 – 3.75	0.75 – 1.5
Deerweed	1.5 – 3.75	0.75 – 1.5
Dewberry	2.3 – 3	0.75 – 1.2
Dogwood*	3 – 3.75	1 – 2
Elderberry	1.5	0.75
Elm*	1.5 – 3.75	0.75 – 1.5
Eucalyptus, blue gum For control of eucalyptus re-sprouts, apply this product using to 12 feet tall. Ensure complete coverage.	_ g a handheld sprayer	1.5 when re-sprouts are 6
Gallberry	1.5 – 3.75	0.75 – 1.5
Gorse*	1.5 – 3.75	0.75 – 1.5
Hackberry, western	1.5 – 3.75	0.75 – 1.5
Hasardia*	1.5 – 3	0.75 – 1.5
Hawthorn	1.5 – 2.3	0.75 – 1.2
Hazel	1.5	0.75
Hickory*	3 – 3.75	1 – 2
Honeysuckle	2.3 – 3	0.75 – 1.2
Hornbeam, American*	1.5 – 3.75	0.75 – 1.5
Huckleberry	1.5 – 3.75	0.75 – 1.5
Ivy, poison	3 – 3.75	1.5
Kudzu	3	1.5
Locust, black*	1.5 – 3	0.75 – 1.5
Madrone resprouts*	-	1.5
	4 = 0 ==	0 == 4 =
Magnolia, sweetbay	1.5 – 3.75	0.75 – 1.5

Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Maple, red For control, apply a 0.75- to 1.2-percent solution of this produce are fully developed. For partial control, apply 1 to 3.75 quarts		
Maple, sugar For control, apply this product using a handheld sprayer whe fully developed.	– n at least 50 percent	0.75 – 1.2 of the new leaves are
Maple, vine*	1.5 – 3.75	0.75 – 1.5
Monkey flower*	1.5 – 3	0.75 – 1.5
Oak; black, white*	1.5 – 3	0.75 – 1.5
Oak; northern pin For control, apply this product when at least 50 percent of the	1.5 – 3 e new leaves are fully	0.75 – 1.2 developed.
Oak, poison	3 – 3.75	1.5
Repeat applications might be required to maintain control. A leaves lose green color.	application in the fall r	must be made before
Oak, post	2.3 - 3	0.75 – 1.2
Oak, red For control, apply this product using a handheld sprayer whe fully developed.	– en at least 50 percent	0.75 – 1.2 of the new leaves are
Oak, scrub*	1.5 – 3	0.75 – 1.5
Oak, southern red	1.5 – 3.75	1 – 1.5
Orange, Osage	1.5 – 3.75	0.75 – 1.5
Peppertree, Brazilian (Florida holly)*	1.5 – 3.75	1.5
Persimmon*	1.5 – 3.75	0.75 – 1.5
Pine	1.5 – 3.75	0.75 – 1.5
Poplar, yellow*	1.5 – 3.75	0.75 – 1.5
Prunus	1.5 – 3.75	1 – 1.5
Raspberry	2.3 – 3	0.75 – 1.2
Redbud, eastern	1.5 - 3.75	0.75 - 1.5
Redcedar, eastern	1.5 – 3.75	0.75 – 1.5
Rose, multiflora Make application prior to leaf deterioration by leaf-feeding ins	1.5 sects.	0.75
Russian olive*	1.5 – 3.75	0.75 – 1.5
Sage, black	1.5 – 3	0.75
Sage, white*	1.5 – 3	0.75 – 1.5
Sagebrush, California	1.5 – 3	0.75
Salmonberry	1.5	0.75
Saltbush	_	1
Saltcedar*	3 – 3.75	1 – 2

	Broadcast Rate	Handheld Spray-to-Wet Concentration
Species	(quarts/acre)	(% solution)

For partial control, apply a 1- to 2-percent solution of this product using a handheld sprayer or 3 to 3.75 quarts per acre as a broadcast application. For control, apply a 1- to 1.5-percent solution of this product in a tank-mix with Arsenal herbicide or Arsenal Herbicide Applicators Concentrate using a handheld sprayer. For control using broadcast application, apply 1.5 quarts of this product per acre in a tank-mix with an appropriate rate of Arsenal herbicide or Arsenal Herbicide Applicators Concentrate to plants less than 6 feet tall. To control saltcedar greater than 6 feet tall using broadcast application, apply 3 quarts of this product per acre in a tank-mix with a higher rate of Arsenal herbicide or Arsenal Herbicide Applicators Concentrate.

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Sassafras*	1.5 – 3.75	0.75 – 1.5
Sea Myrtle	_	1
Sourwood*	1.5 – 3.75	0.75 – 1.5
Sumac; laurel, poison, smooth, sugarbush, winged*	1.5 – 3	0.75 – 1.5
Sweetgum	1.5 – 2.3	0.75 – 1.5
Swordfern*	1.5 – 3.75	0.75 – 1.5
Tallowtree, Chinese	_	0.75
Tan oak re-sprouts*	_	1.5
Thimbleberry	1.5	0.75
Tobacco, tree*	1.5 – 3	0.75 – 1.5
Toyon*	_	1.5
Trumpetcreeper	1.5 – 2.3	0.75 – 1.2
Vine maple*	1.5 – 3.75	0.75 – 1.5
Virginia creeper	1.5 – 3.75	0.75 – 1.5
Waxmyrtle, southern*	1.5 – 3.75	1.5
Willow	2.3	0.75
Yerba Santa, California*	_	1.5

<sup>\*</sup> Partial control

Other woody brush and trees listed on this label – For partial control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast application or a 0.75- to 1.5-percent solution using a handheld sprayer and a spray-to-wet application technique.

### 13.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company ("Company") warrants that this product conforms to the chemical description on the label. 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 use this product only for the purposes of and in accordance with the Complete Directions for Use label ("Directions") and 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, injuries 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, crop injury or 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, use and/or application in any manner not explicitly set forth in or inconsistent with 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.

[Optional statement for agricultural-use products, if applicable: 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.]

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