

524-549

6/28/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D C 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

628-12

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

Subject Label Amendment / RD 1617 Herbicide  
EPA Reg No 524-549

Dear Mr Adams

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable

Submit one copy of the final printed label for the record before you release the product for shipment A stamped copy of the label is enclosed for your records This master label supersedes all previously accepted labels If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e) Your release for shipment of the product constitutes acceptance of these conditions If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft Erik@epa gov

Sincerely,

A handwritten signature in black ink, appearing to read "Kable Bo Davis", enclosed within a large, loopy oval shape.

Kable Bo Davis  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

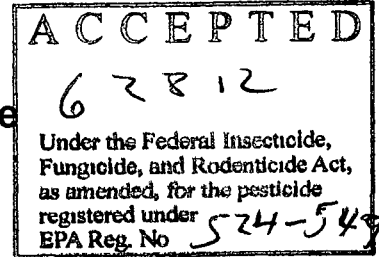
**MASTER LABEL FOR EPA REG. NO. 524-549**

Primary Brand Name

**RD 1617 Herbicide**

Alternate Brand Names

**Roundup PowerMAX Herbicide**



Master Label Table of Contents

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

I CONTAINER LABELS

Front Panel

[INSERT BRAND NAME]

Herbicide

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

[Alternate label statement for non-agricultural products AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE STEMS EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS DESIRABLE PLANTS AND TREES AS SEVERE INJURY OR DESTRUCTION COULD RESULT ]

Keep out of reach of children

CAUTION!

[Optional text if applicable See precautions on side panel]

ACTIVE INGREDIENT

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

OTHER INGREDIENTS 51.3%

100.0%

\*Contains 660 grams of the active ingredient glyphosate in the form of its potassium salt per liter or 5.5 pounds per U.S. gallon which is equivalent to 540 grams of the acid glyphosate per liter or 4.5 pounds per U.S. gallon (39.8% by weight)

EPA Reg. No. 524-549

Herbicide for Roundup Ready® Crops

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

[Alternate label statement for non-agricultural products The complete broad spectrum postemergence professional herbicide for industrial turf and ornamental weed control ]

Selective broad spectrum weed control in Roundup Ready® crops

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

Transorb® (Logo)

Transorb® II Technology (Logo)

Transorb° PLUS (Logo)

Transorb° PLUS Technology (Logo)

Trisorb® (Logo)

I CONTAINER LABELS

CROPSHIELD™ Formulation

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

Roundup® – Powerful Performance at a Practical Price

Roundup Ready PLUS™ – Weed Management Solutions (Logo)

A member of the Roundup® Family of 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

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

[Optional text for outer packaging See inside label booklet for Complete Directions for Use in English and Spanish ]

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

Use only according to label instructions

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

[Optional Container Label Statement THIS IS AN END USE PRODUCT MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION REPACKAGING OF THIS PRODUCT FOR DISTRIBUTION OR SALE MAY BE CONDUCTED ONLY UNDER THE TERMS OF A WRITTEN CONTRACT WITH MONSANTO ]

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

This product is protected by U S Patent Nos 5 668 085 RE 37 866 and 6 365 551 other patents pending No license granted under any non-U S patent(s) [This listing will be updated at time of printing if necessary ]

EPA Est 524 IA 1 EPA Est 524 LA 1 [Optional text Other EPA Est ]

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

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

NET [insert appropriate value] GAL [Alternate text NET CONTENTS]

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

Roundup Roundup Ready Monsanto and the Vine symbol are trademarks of Monsanto Technology LLC [This listing will be updated at time of printing if necessary ]

[Insert Monsanto Vine symbol (Logo)]

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

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

[Side Panels (if applicable)]

PRECAUTIONARY STATEMENTS

I CONTAINER LABELS

Hazards to Humans and Domestic Animals

Keep out of reach of children

**CAUTION!**

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes skin or clothing

<b>FIRST AID</b> Call a poison control center or doctor for treatment advice	
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye</li> </ul>
<b>IF ON SKIN</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes</li> </ul>
<ul style="list-style-type: none"> <li>• Have the product container or label with you when calling a poison control center or doctor or going for treatment</li> <li>• You can also call (314) 694-4000 collect day or night for emergency medical treatment information</li> <li>• This product is identified as <b>[INSERT BRAND NAME] EPA Registration No 524-549</b></li> </ul>	

**DOMESTIC ANIMALS** This product is considered to be relatively nontoxic to dogs and other domestic animals however ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting diarrhea colic etc.) If such symptoms are observed provide the animal with plenty of fluids to prevent dehydration Call a veterinarian if symptoms persist for more than 24 hours

**Personal Protective Equipment (PPE)**

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

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

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

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

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

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

I CONTAINER LABELS

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

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

**User Safety Recommendations**

Users should

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

**Environmental Hazards**

Do not apply directly to water to areas where surface water is present or to intertidal areas below the mean high water mark Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate

**Physical or Chemical Hazards**

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

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

**Non-Agricultural Use Requirements**

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

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

**STORAGE AND DISPOSAL**

I CONTAINER LABELS

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

**PESTICIDE STORAGE** Store pesticides away from food pet food feed seed fertilizers and veterinary supplies Keep container closed to prevent spills and contamination

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

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

**CONTAINER HANDLING AND DISPOSAL**

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

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

Nonrefillable container Do not reuse or refill this container

*[Alternate container statement Nonrefillable container Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate) After emptying and cleaning it may be allowable to temporarily hold rinsate or other pesticide-related materials in 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 a mix tank and drain for 10 seconds after the flow begins to drip Fill the container ¼ full with water and recap Shake for 10 seconds Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times

Then offer this container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill *[Alternate container disposal statement Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [Optional container disposal statement To find the nearest site contact your chemical dealer or Monsanto Company at 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 statement This container is not to be sold to homeowners for residential use ]*

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

## I CONTAINER LABELS

**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

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

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

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

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [*Optional container disposal statement* To find the nearest site contact your chemical dealer or Monsanto Company at 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 [*Alternate container disposal statement* Then offer this container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill ]

[*Optional container label statement* This container is not to be sold to homeowners for residential use ]

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

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

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

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

Nonrefillable container Do not reuse or refill this container

[*Alternate container statement* Nonrefillable container Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate) After emptying and cleaning it may be allowable to temporarily hold rinsate or other pesticide related materials in 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

Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ full with water Replace and tighten closures Tip container on its side and roll it back and forth ensuring at least one revolution for 30 seconds Stand the container on its end and tip it back and forth several times Turn the container over onto its other end and tip it back and forth several times



## I CONTAINER LABELS

Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal Repeat this procedure two more times

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [*Optional container disposal statement* To find the nearest site contact your chemical dealer or Monsanto Company at 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 [*Alternate container disposal statement* Then offer this container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill ]

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

[CONTAINER HANDLING AND DISPOSAL STATEMENT FOR THE SMARTPAK – A NONREFILLABLE COMPOSITE PACKAGING (CARDBOARD OUTER PACKAGING WITH PLASTIC INNER CONTAINER)]

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

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle through the bottom of the container ensuring that you puncture the inner plastic bottle and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed open the outer cardboard container and remove the inner plastic container Some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [*Optional container disposal statement* To find the nearest site contact your chemical dealer or Monsanto Company at 1 800-ROUNDUP (1 800 768-6387) ] Recycle the cardboard separately 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 and inner plastic container in a sanitary landfill [*Alternate container disposal statement* Then offer the outer cardboard and inner plastic container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed inner plastic container and disposing both the outer cardboard and inner plastic container in a sanitary landfill ]

[*Optional container statement* This package is not to be sold to homeowners for residential use ]

[CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL

I CONTAINER LABELS

**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 this container into application equipment or a mix tank Fill the container about 10 percent full with water Agitate vigorously or recirculate water with the pump for 2 minutes Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times Then offer this container for recycling if available

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

[Optional container disposal statement Return Properly Rinsed Container to Monsanto for Recycling – Call 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]

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

**THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY**

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

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

**[ADDITIONAL CONTAINER LABELING FOR THE COMPOSITE PACKAGING DESIGN ONLY]**

3 GALLONS [Alternate text 3 GAL]

[Optional container statement Protect this package from precipitation until emptied and properly rinsed ]

[Top Panel]

**DO NOT REMOVE INNER BOTTLE FROM THIS PACKAGE UNTIL IT HAS BEEN EMPTIED AND PROPERLY RINSED**

[Optional container statement Use the cap to cut the foil seal ]

[Optional container statement Invert cap over foil seal and rotate clockwise and counterclockwise to cut the foil seal Remove foil seal ]

110+138

I CONTAINER LABELS

[Inner Plastic Container]

**[INSERT BRAND NAME]** [*Logo optional*]

GROUP		HERBICIDE
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Keep out of reach of children

# CAUTION!

ACTIVE INGREDIENT

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

\*Contains 660 grams of the active ingredient glyphosate in the form of its potassium salt per liter or 5.5 pounds per U.S. gallon which is equivalent to 540 grams of the acid glyphosate per liter or 4.5 pounds per U.S. gallon (39.8% by weight)

EPA Reg No 524 549

**UNLESS THIS BOTTLE IS EMPTY AND HAS BEEN PROPERLY RINSED FOR DISPOSAL, IT IS NOT INTENDED TO BE REMOVED FROM ITS OUTER CARDBOARD CONTAINER FOR MORE INFORMATION CALL 1 800 ROUNDUP (1 800 768-6387) OR COLLECT AT 314 694-4000**

[Optional label statements related to the Composite Container Only]

Easy to Handle

Uses less plastic than ordinary [*optional alternative typical*] jugs

Produces less plastic waste than ordinary [*optional alternative typical*] jugs

Compact Design

Space Efficient

Stackable

Easy to Use

Easy to Pour

Easy to Recycle

<b>II MAIN LABEL FOR FOOD CROP USES</b>
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**[INSERT BRAND NAME]**

Herbicide

**Complete Directions for Use**

EPA Reg No 524 549

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

Herbicide for Roundup Ready® Crops

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

Selective broad-spectrum weed control in Roundup Ready® crops

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

Transorb® (Logo)

Transorb® II Technology (Logo)

Transorb® PLUS (Logo)

Transorb® PLUS Technology (Logo)

Trisorb® (Logo)

CROPSHIELD™ Formulation

CROPSHIELD™ Formula – Specially formulated for Roundup Ready crops (CROPSHIELD™ Logo)

Roundup® – Powerful Performance at a Practical Price

Roundup Ready PLUS™ – Weed Management Solutions

A member of the Roundup<sup>o</sup> Family of 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 instructions

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

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

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- 2      2 0      IMPORTANT PHONE NUMBERS**
- 3      3 0      PRECAUTIONARY STATEMENTS**
  - 3 1      Hazards to Humans and Domestic Animals
  - 3 2      Environmental Hazards
  - 3 3      Physical or Chemical Hazards
- 4      4 0      STORAGE AND DISPOSAL**
- 5      5 0      PRODUCT INFORMATION**
- 6      6 0      WEED RESISTANCE MANAGEMENT**
  - 6 1      Weed Management Practices
  - 6 2      Management of Glyphosate Resistant Biotypes
- 7      7 0      MIXING**
  - 7 1      Mixing with Water
  - 7 2      Tank Mixtures
  - 7 3      Tank Mixing Procedure
  - 7 4      Mixing for Handheld Sprayers
  - 7 5      Surfactants [*this section is optional in the final printed label*]
  - 7 6      Ammonium Sulfate
  - 7 7      Colorants and Dyes
  - 7 8      Drift Reduction Additives
- 8      8 0      APPLICATION EQUIPMENT AND TECHNIQUES**
  - 8 1      Aerial Application Equipment
  - 8 2      Ground Application Equipment
  - 8 3      Handheld and Backpack Sprayers
  - 8 4      Selective Application Equipment
  - 8 5      Injection Systems
  - 8 6      Controlled Droplet Applicator (CDA)
- 9      9 0      ANNUAL AND PERENNIAL CROPS**
  - 9 1      Cereal and Grain Crops
  - 9 2      Corn
  - 9 3      Cotton
  - 9 4      Fallow Systems
  - 9 5      Grain Sorghum (Milo)
  - 9 6      Herbs and Spices
  - 9 7      Oilseed Crops
  - 9 8      Soybean
  - 9 9      Sugarcane
  - 9 10      Vegetable Crops
  - 9 11      Miscellaneous Crops
- 10    10 0      TREE, VINE, AND SHRUB CROPS**
  - 10 1      Berry Crops
  - 10 2      Citrus Fruit Crops
  - 10 3      Pome Fruit Crops
  - 10 4      Stone Fruit Crops

## II MAIN LABEL FOR FOOD CROP USES

- 10 5 Tree Nut Crops
- 10 6 Tropical and Subtropical Trees and Fruit Crops
- 10 7 Vine Crops
- 10 8 Miscellaneous Tree Food Crops
- 10 9 Non Food Tree Crops
  
- 11 11 0 PASTURE GRASSES, FORAGE LEGUMES AND RANGELAND**
  - 11 1 Alfalfa Clover and Other Forage Legumes
  - 11 2 Conservation Reserve Program (CRP)
  - 11 3 Grass Seed and Sod Production
  - 11 4 Pastures
  - 11 5 Rangeland
  
- 12 12 0 ROUNDUP READY CROPS**
  - 12 1 Roundup Ready Alfalfa
  - 12 2 Roundup Ready Canola (Spring Varieties)
  - 12 3 Roundup Ready Canola (Winter Varieties)
  - 12 4 Field Corn Hybrids with Roundup Ready 2 Technology
  - 12 5 Sweet Corn Hybrids with Roundup Ready 2 Technology [*Alternate heading* Roundup Ready Sweet Corn]
  - 12 6 Roundup Ready Cotton
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  - 12 8 Roundup Ready Soybean
  - 12 9 Roundup Ready 2 Yield Soybean
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- 13 13 0 GLYPHOSATE TOLERANT CROP SEED PRODUCTION**
  - 13 1 Seed Production of Rice with a Roundup Ready Gene
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  - 15 1 Annual Weeds—Tank Mixtures with 2 4 D Dicamba or Tordon 22K
  - 15 2 Annual Weeds—Hand-Held and Backpack Sprayers
  - 15 3 Annual Weeds—Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems
  
- 16 16 0 PERENNIAL WEEDS RATE SECTION**
  
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- 18 18 0 LIMIT OF WARRANTY AND LIABILITY**
  
- 1 0 INGREDIENTS**

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 ACTIVE INGREDIENT

II MAIN LABEL FOR FOOD CROP USES

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

\*Contains 660 grams of the active ingredient glyphosate in the form of its potassium salt per liter or 5.5 pounds per U.S. gallon which is equivalent to 540 grams of the acid glyphosate per liter or 4.5 pounds per U.S. gallon (39.8% by weight)

This product is protected by U.S. Patent Nos. 5,668,085, RE 37,866 and 6,365,551. Other Patents Pending. No license granted under any non U.S. patent(s). [This listing will be updated at the time of printing if necessary.]

**2.0 IMPORTANT PHONE NUMBERS**

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

**3.0 PRECAUTIONARY STATEMENTS**

**3.1 Hazards to Humans and Domestic Animals**

Keep out of reach of children

**CAUTION!**

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes, skin, or clothing

<b>FIRST AID</b> Call a poison control center or doctor for treatment advice	
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye</li> </ul>
<b>IF ON SKIN</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes</li> </ul>
<ul style="list-style-type: none"> <li>• Have the product container or label with you when calling a poison control center or doctor or going for treatment</li> <li>• You can also call (314) 694-4000 collect day or night for emergency medical treatment information</li> <li>• This product is identified as [INSERT BRAND NAME] EPA Registration No 524-549</li> </ul>	

**DOMESTIC ANIMALS** This product is considered to be relatively nontoxic to dogs and other domestic animals however ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

**Personal Protective Equipment (PPE)**

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

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

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

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

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

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

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

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

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

**User Safety Recommendations**

Users should

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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 can be mixed, stored, and applied using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

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



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**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product may only be used in accordance with the Directions for Use on this label or in separately published Monsanto supplemental labeling. Supplemental labeling 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: wear coveralls, shoes, plus socks and chemical resistant gloves made of any waterproof material.

**Non-Agricultural Use Requirements**

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

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

**4.0 STORAGE AND DISPOSAL**

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

II MAIN LABEL FOR FOOD CROP USES

**PESTICIDE STORAGE** Store pesticides away from food pet food feed seed fertilizers and veterinary supplies Keep container closed to prevent spills and contamination

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

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

**CONTAINER HANDLING AND DISPOSAL** *[Optional label statement if applicable* See container label for container handling and disposal instructions and refilling limitations ]

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

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

Nonrefillable container Do not reuse or refill this container

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

Triple rinse the container promptly after emptying

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

Then offer the container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill *[Alternate container disposal statement* Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling *[Optional container disposal statement* To find the nearest site contact your chemical dealer or Monsanto Company at 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 CONTAINERS 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

## II MAIN LABEL FOR FOOD CROP USES

pesticide related materials in the container Contact your state regulatory agency to determine allowable practices in your state

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

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

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

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

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

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

Nonrefillable container Do not reuse or refill this container

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

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

Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ full with water Replace and tighten closures Tip container on its side and roll it back and forth ensuring at least one revolution for 30 seconds Stand the container on its end and tip it back and forth several times Turn the container over onto its other end and tip it back and forth several times Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal Repeat this procedure two more times

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [*Optional container disposal statement* To find the nearest site contact your chemical dealer or Monsanto Company at 1 800-ROUNDUP (1-800 768 6387) ] If recycling is not

## II MAIN LABEL FOR FOOD CROP USES

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

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

[CONTAINER HANDLING AND DISPOSAL STATEMENT FOR THE SMARTPAK – A NONREFILLABLE COMPOSITE PACKAGING (CARDBOARD OUTER PACKAGING WITH PLASTIC INNER CONTAINER)]

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

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle through the bottom of the container ensuring that you puncture the inner plastic bottle and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed open the outer cardboard container and remove the inner plastic container Some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [Optional container disposal statement To find the nearest site contact your chemical dealer or Monsanto Company at 1 800-ROUNDUP (1 800 768 6387)] Recycle the cardboard separately 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 and inner plastic container in a sanitary landfill [Alternate container disposal statement Then offer the outer cardboard and inner plastic container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed inner plastic container and disposing both the outer cardboard and inner plastic container in a sanitary landfill ]

[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 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 a mix tank Fill the container about 10 percent full with water Agitate vigorously or recirculate water with the pump for 2 minutes Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times Then offer the container for recycling if available

II MAIN LABEL FOR FOOD CROP USES

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

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

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

**THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY**

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

**5 0 PRODUCT INFORMATION**

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

[Optional label text Do not add [Optional label text surfactants additives containing surfactants ] buffering agents or pH adjusting agents to the spray solution when [INSERT BRAND NAME] is the only pesticide being applied unless otherwise directed See the MIXING section of this label for instructions regarding other additives ]

[Optional label text No additional surfactant in the spray solution is needed This includes additives containing surfactants buffering agents or pH adjusting agents when [INSERT BRAND NAME] is the only pesticide used unless otherwise directed ]

**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

**Stage of Weeds** Annual weeds are easiest to control when they are small Best 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 AND TREES RATE SECTION for more information on controlling specific weeds

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

Reduced weed control could result when this product is applied to weeds that show signs of disease or insect damage are heavily covered with dust or are surviving under poor growing conditions

**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 to the specified stage prior to application

## II MAIN LABEL FOR FOOD CROP USES

**Rainfastness** Heavy rainfall soon after application could wash this product off of the foliage and a second application might then be required for adequate weed control

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

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

**No Soil Activity** Weeds must be emerged at the time of application to be controlled by this product Weed seeds in the soil will not be affected by this product and will continue to germinate Plants arising from unattached underground rhizomes or root stocks of perennials that have not yet emerged at the time of application will not be affected by this product and will continue to grow

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

**Maximum Application Rates** The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre However the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate whether applied separately or 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

Except as otherwise specified in a crop section of this label the combined total application of this product on a site must not exceed 5.3 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 7 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 mode of action classification system of the Weed Science Society of America Any weed population can contain plants naturally resistant to Group 9 herbicides Weed species resistant to Group 9 herbicides can be effectively managed by using another herbicide from a different Group or by using other cultural or mechanical methods

#### 6.1 Weed Management Practices

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

- Scout your fields before and after herbicide application
- Start with a clean field using either a burndown herbicide application or tillage
- Control weeds early when they are relatively small
- Incorporate other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) into your weed management program where appropriate

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- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops
- Use the application rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism) or with ones that encourage application of this product at rates less than those specified on this label
- Control weed escapes and prevent weeds from setting seeds
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts
- Use new commercial seed that is as free of weed seed as possible
- Report any incidence of repeated non performance of this product on a particular weed to your Monsanto Company representative, local retailer, or county extension agent

### 6.2 Management of Glyphosate Resistant Biotypes

Appropriate testing is needed to determine if a weed is resistant to glyphosate. Call 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 [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com) or [www.weedscience.org](http://www.weedscience.org). For more information see the ANNUAL WEEDS RATE SECTION and PERENNIAL WEEDS RATE SECTION of this label.

Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, Monsanto Company is not responsible for any losses that result from the failure of this product to control glyphosate resistant weed biotypes.

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

- If a naturally occurring resistant biotype is present in your field, apply this product in a tank mix or sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) can also be used as appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Scout fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

### 7.0 MIXING

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

**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 sufficient.

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

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**7 1 Mixing with Water**

PRODUCT PERFORMANCE CAN BE SIGNIFICANTLY REDUCED IF WATER CONTAINING SOIL SEDIMENT IS USED AS CARRIER DO NOT MIX THIS PRODUCT WITH WATER FROM PONDS 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 bypass and return lines at the bottom of the tank and if necessary use an anti-foam or defoaming agent

**7 2 Tank Mixtures**

This product does not provide residual weed control This product may be tank mixed with other herbicides to provide residual weed control a broader weed control spectrum or an alternate mode of action Always read and follow label directions for all products in the tank mixture

Some tank mix products have the potential to cause crop injury under certain conditions at certain growth stages and/or under other circumstances Read the label 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 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 or pendimethalin is listed on this label the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mix

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

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

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

**7 3 Tank Mixing Procedure**

Prepare tank mixtures of this product as follows

- 1 Place a 20- to 35 mesh screen or wetting basket over the filling port of the tank
- 2 Through the screen fill the tank one half full with water and start gentle agitation
- 3 If ammonium sulfate is to be used add it slowly through the screen into the tank and continue adding water into the tank through the screen If dry ammonium sulfate is being used ensure that it is completely dissolved in the tank before adding other products
- 4 If a wettable powder is used prepare a slurry of it with water and add it SLOWLY through the screen into the tank while continuing gentle agitation



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- 5 If a flowable formulation is used premix one part flowable with one part water and add the diluted mixture SLOWLY through the screen into the tank while continuing gentle agitation
- 6 If an emulsifiable concentrate formulation is used premix one part emulsifiable concentrate with two parts water and add the diluted mixture SLOWLY through the screen into the tank while continuing gentle agitation
- 7 Continue filling the tank with water through the screen and add the required amount of this product near the end of the filling process
- 8 [Optional label statement If a nonionic surfactant is used add it to the tank before completing the filling process ]
- 9 Add individual tank mix components to the tank as follows wettable powders flowables emulsifiable concentrates drift reduction additives water soluble liquids (this product) [Optional label statement surfactants]

Maintain gentle agitation at all times until the contents of the tank are sprayed out If the spray mixture is allowed to settle thorough agitation will be required to re suspend the mixture before spraying can be resumed

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 sufficient

**7 4 Mixing for Handheld Sprayers**

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

Spray Solution

Desired Volume	Amount of [INSERT BRAND NAME]					
	0 4%	0 7%	1%	1 5%	4%	7%
1 gal	0 5 oz	1 oz	1 3 oz	2 oz	5 oz	9 oz
25 gal	0 8 pt	0 7 qt	1 qt	1 5 qt	4 qt	7 qt
100 gal	1 6 qt	2 8 qt	1 gal	1 5 gal	4 gal	7 gal

2 tablespoons = 1 fluid ounce

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

**7 5 Surfactants [this section is optional in the final printed label]**

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

Nonionic surfactants that are labeled for use with herbicides may be used Do not reduce rates of this product when adding surfactant Use a surfactant concentration of 0 25 to 0 5 percent (1 to 2 quarts per 100 gallons of spray solution) when adding surfactant that contains at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) when adding surfactant that contains less than 70 percent active ingredient Read and carefully observe all precautionary statements and other information on the surfactant label

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[Optional label statement DO NOT add buffering agents or pH adjusting agents to the spray solution when [INSERT BRAND NAME] is the only pesticide product being applied ]

DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PREHARVEST APPLICATION TO COTTON OR ANY POSTEMERGENCE (IN-CROP) APPLICATION TO ROUNDUP READY COTTON AND ROUNDUP READY FLEX COTTON

**7 6 Ammonium Sulfate**

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

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

**7 7 Colorants and Dyes**

Colorants and marking dyes may be added to spray solutions of this product however they can reduce 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 carefully observe all precautions limitations and all other information on the product label Use of drift reduction additives can affect spray coverage which could reduce the performance of this product

**8 0 APPLICATION EQUIPMENT AND TECHNIQUES**

Do not apply this product through any type of irrigation system

This product may be applied with the following application equipment

**Aerial Application Equipment**—Fixed wing and helicopter

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

**Handheld and Backpack Sprayers**—Backpack sprayers pump-up pressure sprayers handguns handwands mistblowers\* lances and other hand held and motorized spray equipment used to direct the spray onto weed foliage

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

**Selective Application Equipment**— Shielded and hooded sprayers wiper applicators and sponge bars

**Injection Systems**—Aerial or ground injection sprayers

**Controlled Droplet Applicator (CDA)**—Handheld or boom-mounted applicators that produce a spray consisting of a narrow range of droplet sizes

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

**8 1 Aerial Application Equipment**

## II MAIN LABEL FOR FOOD CROP USES

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 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**

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 or Fact Sheet published for this product Unless otherwise directed the maximum single application rate of this product is 44 fluid ounces per acre when using aerial application equipment Refer to the individual use area sections of this label for application rates spray volumes and additional directions for use

**FOR AERIAL APPLICATION IN ARKANSAS AND CALIFORNIA OR SPECIFIC COUNTIES THEREIN REFER TO THE LIMITATIONS FOR AERIAL APPLICATION OF THIS PRODUCT IN THAT STATE OR COUNTY LISTED IN THIS SECTION FOR SPECIFIC INSTRUCTIONS RESTRICTIONS AND REQUIREMENTS**

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

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

### **AERIAL SPRAY DRIFT MANAGEMENT**

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

- 1 The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor
- 2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees Where states have more stringent regulations they must be 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 (see the Wind Temperature and Humidity and Temperature Inversions sections of this label)

#### **Controlling Droplet Size**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume Nozzles with the higher rated flows produce larger droplets
- **Pressure** Use the lower spray pressure listed for the nozzle Higher pressure reduces droplet size and does not improve canopy penetration When higher flow rates are needed use higher flow rate nozzles instead of increasing pressure
- **Number of nozzles** Use the minimum number of nozzles that provide uniform coverage
- **Nozzle orientation** Orienting nozzles so that the spray is released backwards parallel to the air stream will produce larger droplets than other orientations Significant deflection from the horizontal will reduce droplet size and increase drift potential

II MAIN LABEL FOR FOOD CROP USES

- **Nozzle type** Use a nozzle type that is designed for the intended application. With most nozzle types narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom length** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length could further reduce drift without reducing swath width.
- **Application height** 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 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 applications 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 during a temperature inversion because 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.

**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.

II MAIN LABEL FOR FOOD CROP USES

**State Specific Limitations on Aerial Application**

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**LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY,  
INCLUDING FRESNO COUNTY, CALIFORNIA**

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AVOID DRIFT – DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT DRIFT CAN CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH APPLICATION WAS NOT INTENDED TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION APPROPRIATE BUFFER ZONES MUST BE MAINTAINED

Use the following guidelines when making an aerial application near crops or desirable perennial vegetation after bud break and before total leaf drop and/or near other desirable vegetation or annual crops

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

When applied as directed under the conditions described this product controls annual and perennial weeds listed on this label

When tank mixing this product with 2 4 D only 2 4 D amine formulations may be used for aerial application in California Tank mixtures with 2 4 D amine formulations may be applied by air in California for fallow and reduced tillage systems and for alfalfa and pasture renovation applications only

This product when tank-mixed with dicamba may not be applied by air in California

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**ADDITIONAL LIMITATIONS FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY**

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The following information applies only from February 15 through March 31 within the following boundaries of Fresno County California

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

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

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

**Written 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

## II MAIN LABEL FOR FOOD CROP USES

### **Aerial Applicator Training and Equipment**

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

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

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

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

### **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.

Use the following guidelines when application is made near crops or other desirable vegetation:

- 1 Do not apply this product within 100 feet of any desirable vegetation or crops.
- 2 If wind up to 5 miles per hour is blowing toward desirable vegetation or crops, do not apply this product within 500 feet upwind of the desirable vegetation or crops.

II MAIN LABEL FOR FOOD CROP USES

- 3 Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet

**8 2 Ground Application Equipment**

Apply this product at the appropriate rate in 3 to 40 gallons of water per acre when making a broadcast application using ground application equipment unless otherwise 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 towards the upper end of this range to ensure complete coverage Use nozzles that will avoid generating a fine mist For best results with ground application equipment use flat-fan nozzles Check spray pattern for uniform distribution

**8 3 Handheld and Backpack Sprayers**

Apply spray solutions of this product uniformly and completely to foliage of vegetation to be controlled 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 refer to the ANNUAL WEEDS RATE SECTION of this label under Annual Weeds—Handheld and Backpack Sprayers

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 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 4 Selective Application Equipment**

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

In cropping systems a shielded sprayer hooded sprayer or wiper applicator may be used in between rows of crop plants (row middles) A wiper applicator may be used over the top of crops only when specifically directed on this label

Selective equipment must be capable of preventing all contact of the herbicide solution with the crop and operated without spray mist escape leakage or dripping of the herbicide solution onto the crop

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

**Shielded and Hooded Sprayers**

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

A shielded sprayer directs the herbicide solution to the target weeds while protecting desirable vegetation from being contacted by the herbicide spray with an impervious material or shield Use nozzles that provide uniform coverage within the application area Keep shields on these sprayers 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 from the spray solution Adjust the shields on these sprayers to protect desirable vegetation When applying around crops grown on raised beds ensure that the hood is capable of completely enclosing the spray pattern If necessary extend the front and rear flaps of the hooded sprayer downward to reach the ground in deep furrows

## II MAIN LABEL FOR FOOD CROP USES

USE EXTREME CARE TO AVOID CONTACT OF SPRAY SOLUTIONS OF THIS PRODUCT WITH DESIRABLE VEGETATION. Contact of this product in any manner to any vegetation to which application is not intended could cause damage. To the extent consistent with applicable law, such damage shall be the sole responsibility of the applicator.

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. 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 reduce the potential for crop injury when using a hooded sprayer:

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

Crop injury can occur when application is made to foliage of weeds that come into direct contact with the crop. Do not apply this product when crop leaves 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 directly onto the weed. Equipment must be designed, maintained, and operated to prevent the herbicide solution from contacting desirable vegetation.

Adjust the height of the wiper applicator to ensure adequate contact with weeds and so that the wiper contact point is at least 2 inches above the desirable vegetation. Better results can be obtained when more of the weed is exposed to the herbicide solution and weeds are a minimum of 6 inches above the desirable vegetation. Weeds 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 re-saturation of the wiper with the herbicide solution. Better results can be obtained when two applications are made in opposite directions.

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

Do not apply this product using a wiper applicator when weeds are wet.



II MAIN LABEL FOR FOOD CROP USES

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

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

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

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

**8 5 Injection Systems**

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

**8 6 Controlled Droplet Applicator (CDA)**

The amount of this product applied per acre using a controlled droplet applicator (CDA) must be no less than the rate specified on this label for application using conventional broadcast application equipment Apply the appropriate amount of this product in 2 to 15 gallons of water per acre when using a vehicle mounted CDA

For control of annual weeds using a handheld CDA apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1 5 miles per hour (1 quart per acre) For the control of perennial weeds apply a 20- to 30 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0 75 mile per hour (2 to 3 quarts per acre)

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 Apply this product during fallow intervals preceding planting prior to planting or transplanting at planting or preemergence to annual and perennial crops listed on this label except where specifically limited For any crop not listed 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 AND TREES RATE SECTION of this label Application rates specified on this label for the control of tough weeds or those specified on separate supplemental labeling for this product supersede the rates in the ANNUAL WEEDS RATE SECTION PERENNIAL WEEDS RATE SECTION and WOODY BRUSH AND TREES RATE SECTION of this label Additional information on the control of tough weeds can be found on Fact Sheets published for this product

II MAIN LABEL FOR FOOD CROP USES

Application of this product may be repeated as needed up to a maximum of 5.3 quarts per acre per year

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

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 buffer zones will help prevent injury to adjacent vegetation.

**TANK MIXTURES** This product may be tank mixed with other herbicides to provide residual weed control, a broader weed control spectrum, or an alternate mode of action. Always read and follow label directions for all products in the tank mixture. Use all products according to rates and timing specified on the label. Some tank-mix products have the potential to cause crop injury. Read the label of 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. 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 freshly sprayed weeds 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 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.

## II MAIN LABEL FOR FOOD CROP USES

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 applications 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 treated vegetation 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 tank mixture in accordance with the most restrictive statements for each product in the tank mixture.

### 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 32 fluid ounces of this product in 5 to 10 gallons of water per acre when the majority of the red rice plants are at the 2 leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves might only be partially controlled. 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 treated within a field.

**RESTRICTIONS** The 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 purposes. DO NOT make this application using aerial application equipment.

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

II MAIN LABEL FOR FOOD CROP USES

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 22 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 control after harvest of cereal crops Higher rates might be required 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 [Alternate 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 the 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

II MAIN LABEL FOR FOOD CROP USES

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

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

Aim Aim EC Axiom Balance Flexx Banvel Bicep MAGNUM Bicep II MAGNUM Bicep Lite II MAGNUM Bullet Cinch Cinch ATZ Clarity Corvus Degree Degree Xtra Distinct Dual MAGNUM Dual II MAGNUM Frontier FulTime Guardsman Guardsman MAX Harness Harness Xtra Harness Xtra 5 6L Hornet Keystone Keystone LA Lariat Leadoff Linex Lorox Marksman Me Too-Lachlor II Micro Tech Outlook Prowl Python Python II Radius Resolve Resource Shark Sharpen Simazine Stalwart Stalwart C Stalwart Xtra Surpass TopNotch TripleFLEX]

For tough-to-control annual weeds such as fall panicum barnyardgrass crabgrass shattercane and broadleaf signalgrass up to 2 inches tall and Pennsylvania smartweed up to 6 inches tall apply 22 fluid ounces of this product per acre in these tank mixtures For other annual weeds listed on this label apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall and 22 to 32 fluid ounces per acre when weeds are over 6 inches tall When using a nitrogen solution as the carrier a higher application rate 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 apply this product in nitrogen solutions to tough to control grasses such as barnyardgrass fall panicum broadleaf signalgrass annual ryegrass and any perennial weeds This area includes Illinois and Indiana south of Route 50 Alabama Arkansas Delaware Florida Georgia Kentucky Louisiana Maryland Mississippi New Jersey North Carolina Oklahoma South Carolina Tennessee Texas Virginia and West Virginia

**Hooded Sprayer**

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

RESTRICTIONS Corn must be at least 12 inches tall measured without extending leaves Do not apply more than 22 fluid ounces of this product per acre for each hooded sprayer application and no more than 64 fluid ounces per acre per year total

**Spot Treatment**

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 Apply up to 64 fluid ounces of this product per acre when using ground application equipment or up to 44 fluid ounces per acre when 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

II MAIN LABEL FOR FOOD CROP USES

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 required 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 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.

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

acetochlor, clomazone, diuron, flumioxazin, fluometuron, fomesafen, metolachlor, s-metolachlor, norflurazon, pendimethalin, prometryn, pyriproxyfen, saflufenacil

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

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**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 regrowth inhibition when applied prior to harvest. For weed control, apply at rates given in the ANNUAL WEEDS RATE SECTION and

## II MAIN LABEL FOR FOOD CROP USES

**PERENNIAL WEEDS RATE SECTION** of this label For cotton re growth inhibition apply 16 to 44 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

**RESTRICTIONS** Allow a minimum of 7 days between application and harvest **DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PREHARVEST APPLICATION TO COTTON**

### 9 4 Fallow Systems

This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label 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 44 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 AND TREES RATE SECTION** of this label prior to planting

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

Apply 11 fluid ounces of this product plus 2 to 3 fluid ounces of Goal 2XL per acre to control the following weeds up to the maximum height or length indicated 6 inches—common cheeseweed groundsel maretail (*Conyza canadensis*) 12 inches—chickweed London rocket shepherd s-purse

#### Aid to Tillage

**USE INSTRUCTIONS** This product may be used in conjunction with tillage practices in fallow systems or preplant to crops listed on this label to control downy brome cheat volunteer wheat tansy mustard and foxtail Apply 8 fluid ounces of this product in 3 to 10 gallons of water per acre before weeds are 6 inches in height Application must be followed by conventional tillage no later than 15 days after 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 APPLICATION** Those listed in Section 9 0 plus Spot Treatment Wiper Applicator Preharvest Preplant, At Planting, Preemergence

## II MAIN LABEL FOR FOOD CROP USES

**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

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

acetochlor alachlor atrazine metolachlor s-metolachlor saflufenacil

Bicep II MAGNUM Bullet Dual II MAGNUM INTRRO Lariat Micro Tech Sharpen Warrant]

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For tough to control annual weeds such as fall panicum barnyardgrass crabgrass shattercane and broadleaf signalgrass up to 2 inches tall and Pennsylvania smartweed up to 6 inches tall apply 22 fluid ounces of this product per acre in a tank mixture with one of the products listed here

For control of other annual weeds listed on this label apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall and 22 to 32 fluid ounces per acre when weeds are over 6 inches tall When using a nitrogen solution as the carrier the application rate might need to be increased to achieve adequate 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 Such damage shall be the sole responsibility of the applicator 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 22 fluid ounces of this product per acre per hooded sprayer application and no more than 64 fluid ounces per acre per year total

### **Preharvest**

**USE INSTRUCTIONS** Apply up to 44 fluid ounces of this product per acre 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 to milo infected with charcoal rot as lodging can occur



## II MAIN LABEL FOR FOOD CROP USES

**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 required 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 22 fluid ounces of this product per acre for control or 16 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 Cilantro (leaf) Cilantro (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 (seed) Canola Crambe Flax Jojoba Lesquerella Meadowfoam Mustard (seed) Rape Safflower Sesame Sunflower

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

**TYPES OF APPLICATION** Those listed in Section 9.0 plus Preharvest (safflower and sunflower only)

## II MAIN LABEL FOR FOOD CROP USES

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

<b>Maximum Application Rates</b>	
<b>Canola</b>	
Combined total for all Preemergence and Selective Equipment applications	44 fluid ounces per acre
<b>Safflower</b>	
Combined total for all Preemergence and Selective Equipment applications	64 fluid ounces per acre
Preharvest application	64 fluid ounces per acre
<b>Sunflower</b>	
Combined total for all Preemergence and Selective Equipment applications	22 fluid ounces per acre
Preharvest application	22 fluid ounces per acre

**Preplant, At-Planting, Preemergence**

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

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

**Selective Equipment**

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

**Preharvest (Safflower and Sunflower Only)**

**USE INSTRUCTIONS** This product provides weed control and serves as a harvest aid when applied to a physiologically mature crop of safflower and sunflower prior to harvest For safflower apply up to 64 fluid ounces of this product 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 apply up to 22 fluid ounces of this product per acre when the backsides of sunflower heads are yellow and bracts are turning brown and seed moisture content is less than 35 percent

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

**Post-Harvest**

**USE INSTRUCTIONS** This product may be applied for weed control after harvest of oilseed crops Higher application rates might be required 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

## II MAIN LABEL FOR FOOD CROP USES

post harvest application in the crop harvested 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

### 9 8 Soybean

**TYPES OF APPLICATION** Those listed in Section 9 0 plus Spot Treatment Selective Equipment Preharvest

For directions for use with Roundup Ready soybean and Roundup Ready 2 Yield soybean see the **ROUNDUP READY CROPS** section of this label

### Preplant, At-Planting, Preemergence

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

**TANK MIXTURES** This product may be tank mixed with 2 4 D Banvel or Clarity and applied prior to planting only This product may 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

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

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

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

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For tough to control annual weeds such as fall panicum barnyardgrass crabgrass shattercane and broadleaf signalgrass up to 2 inches tall and Pennsylvania smartweed up to 6 inches tall apply 22 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 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall and 22 to 32 fluid ounces per acre when weeds are over 6 inches tall

### 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

## II MAIN LABEL FOR FOOD CROP USES

**USE INSTRUCTIONS** This product may be applied in soybean using a shielded applicator hooded sprayer wiper applicator or sponge bar See additional instructions on the use of this 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 3.3 quarts of this product per acre for preharvest application using ground application equipment or more than 44 fluid ounces per acre when making the application using aerial application equipment Allow a minimum of 7 days between application and harvest of soybean If the preharvest application rate is greater than 22 fluid ounces per acre do not graze or harvest hay or fodder within the application area for livestock feed within 25 days of application If the application rate is 22 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

### **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

### **Spot Treatment**

**USE INSTRUCTIONS** This product may be applied as a spot treatment in sugarcane For control of volunteer or diseased sugarcane apply a 1 percent solution of this product in water using a spray to-wet technique Best results are obtained on volunteer or diseased sugarcane with at least 7 new leaves Avoid contact of this herbicide with healthy sugarcane plants as severe damage or destruction could result

**RESTRICTIONS** Do not feed or graze 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 ratoon cane by applying 2.5 to 3.3 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves Allow a minimum of 7 days after application before tillage Aerial application of up to 64 fluid ounces per acre may be made onto fallow sites where there is sufficient buffer to prevent drift onto adjacent crops Tank mixtures with 2,4-D 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

## II MAIN LABEL FOR FOOD CROP USES

### 9 9 1 Sugarcane Ripening

**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 the higher application rate within the given range when treating sugarcane under adverse ripening conditions or less responsive varieties.

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

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

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

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

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

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

Rainfall within 6 hours after application could reduce the effectiveness of this product.

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

**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), soybeans, 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 (rutabaga only), Post-Harvest.

## II MAIN LABEL FOR FOOD CROP USES

**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 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 emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of crop injury. In crops with vines, make hooded sprayer, shielded sprayer and wiper applications in row middles prior to vine development; otherwise, severe crop injury or destruction could result.

**RESTRICTIONS** 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. 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 lan), 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** Garlic, Great headed garlic, Leek, Onion (dry bulb and green), Welsh onion, Shallot.

### 9 10 3 Cucurbit Vegetables and Fruits

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

**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 minimum 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 and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter).

## II MAIN LABEL FOR FOOD CROP USES

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 Do not apply this product during the period between seeding and emergence

**9 10 5 Fruiting Vegetables**

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

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 beans peas lentils and chickpeas only) Preharvest (dry beans peas lentils and chickpeas only)

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

USE INSTRUCTIONS This product may be applied as a spot treatment to control troublesome weeds such as Canada thistle quackgrass mayweed (dog fennel) and milkweed in dry beans peas lentils and chickpeas Apply up to 22 fluid ounces of this product per acre in dry beans or up to 64 fluid ounces per acre in dry peas lentils and chickpeas in 10 to 20 gallons of water using ground application equipment or use a 2 percent solution in a handheld sprayer For best 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 in cowpeas or field (feed) peas since this crop is considered to be grown only as livestock feed

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

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

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 this crop is considered to be grown only as livestock feed

## II MAIN LABEL FOR FOOD CROP USES

### 9 10 7 Root and Tuber Vegetables

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

#### Directed Application (Non Bearing Ginseng Only)

USE INSTRUCTIONS This product may be applied for weed control in established non bearing ginseng using a boom sprayer CDA shielded sprayer wiper applicator handheld or backpack wand lance or orchard gun Control the application so as not to allow any contact of this product with the ginseng plant See additional use instructions in the APPLICATION EQUIPMENT AND TECHNIQUES section of this label

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

#### Wiper Applicator (Rutabaga Only)

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

RESTRICTIONS Allow a minimum of 14 days between application and harvest of rutabaga

### 9 11 Miscellaneous Crops

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

TYPES OF APPLICATION Those listed in Section 9 0 plus Spot Weed Control Site Preparation Spot Treatment (asparagus) Post Harvest (asparagus)

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

PRECAUTIONS Preemergence application must be made before crop emergence to avoid severe crop injury Apply before seed germination in coarse sandy soils to further minimize the risk of crop injury In crops with vines 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 transplant holes

RESTRICTIONS Allow a minimum of 21 days between residue removal and transplanting Do not apply this product within 7 days prior to 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



## II MAIN LABEL FOR FOOD CROP USES

**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 (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 this product with 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 Site Weed Control Middles (in between rows of trees, vines or bushes) Strips (within rows of trees, vines or bushes) Selective Equipment (shielded sprayer wiper applicator) Directed Spray Spot Treatment Perennial Grass Suppression Cut Stump Application

This product may be applied using a boom sprayer, CDA shielded sprayer, wiper applicator, handheld or backpack wand, lance or orchard gun, unless specifically prohibited in the individual crop sections that follow.

**USE INSTRUCTIONS** This product may be applied in middles (in between rows of trees or vines), strips (within rows of trees or vines) and for weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. Apply 11 fluid ounces to 3.3 quarts of this product per acre as directed in the **ANNUAL WEEDS RATE SECTION** and **PERENNIAL WEEDS RATE SECTION** of this label. Use the higher application rate within the 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 7 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 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 spray, 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 and transplanting.

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

**USE INSTRUCTIONS** This product will control or suppress annual and perennial weeds and ground covers growing in between rows of tree and vine crops listed on this label. If weeds are under drought

## II MAIN LABEL FOR FOOD CROP USES

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 in between rows (middles) of citrus tree fruit tree nut and vine crops when weeds are stressed or growing in dense populations Application of 11 to 22 fluid ounces of this product plus 3 to 12 fluid ounces of Goal 2XL per acre will control annual weeds with a maximum height or length of 6 inches including crabgrass common groundsel junglerice common lambsquarters redroot pigweed London rocket common ryegrass shepherd s-purse annual sowthistle filaree (suppression) horseweed/marestail stinging nettle and common purslane (suppression) This tank mixture will also control common cheeseweed (malva) or hairy fleabane with a maximum height or length of 3 inches

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

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

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 Devrinol 50 DF Direx 4L Dri Clean Fusilade DX Goal 2XL GoalTender Karmex DF Karmex II DF Matrix FNV Orchard Master CA Pindar GT Poast Prowl Prowl H2O Princep Caliber 90 Rely 200 Rely 280 Select Max Simazine 4L Simazine 80W Sim-Trol 4L Solicam DF Surflan AS Surflan 75W Treevix Powered by Kixor Venue Visor 2E]

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### Strips (within rows)

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

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

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 Devrinol 50 DF Direx 4L Dri-Clean Fusilade DX Goal 2XL GoalTender Karmex DF Karmex II DF Matrix FNV Orchard Master CA Pindar GT Poast Prowl Prowl H2O Princep Caliber 90 Rely 200 Rely 280 Select Max Simazine 4L Simazine 80W Sim Trol 4L Solicam DF Surflan AS Surflan 75W Treevix Powered by Kixor Venue Visor 2E]

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

II MAIN LABEL FOR FOOD CROP USES

For suppression of Kentucky bluegrass covers apply 4 fluid ounces of this product per acre Do not add ammonium sulfate

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

For suppression of vegetative growth and seed head inhibition of bahiagrass for approximately 45 days apply 4 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 seed head emergence

For suppression 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 applications per year

For burndown of bermudagrass apply 22 to 44 fluid ounces of this product in 3 to 20 gallons of water per acre Make this application only if 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 to 11 fluid ounces of this product per acre east of the Rocky Mountains and 11 fluid ounces of this product per acre west of the Rocky Mountains in a total spray volume of 3 to 20 gallons per acre no sooner than 1 to 2 weeks after full green-up If the bermudagrass is mowed prior to application maintain a minimum of 3 inches in height Sequential applications may be made when re-growth occurs and bermudagrass injury and stand reduction can be tolerated East of the Rocky Mountains apply 4 to 7 fluid ounces of this product per acre in shaded conditions or where a lesser degree of suppression is desired

**Cut Stump Application**

Application of this product to a freshly cut tree stump may be made during site preparation or site renovation prior to transplanting tree crops to control re growth and re-sprouting of many tree species some of which are listed below

Citrus Trees Calamondin Chironja Citron Citrus hybrids Grapefruit Kumquat Lemon Lime Mandarin (tangerine) Orange (all) Pummelo Tangelo (ugli) Tangor

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

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

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 best 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 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 a common root system

**10 1 Berry Crops**

LABELED CROPS Blackberry (including bingleberry black satin berry boysenberry Cherokee blackberry chesterberry Cheyenne blackberry coryberry darrowberry dewberry Dirksen thornless berry

II MAIN LABEL FOR FOOD CROP USES

Himalayaberry hullberry juneberry lavacaberry lowberry lucretiaberry marionberry nectarberry olallieberry Oregon evergreen berry phenomenalberry rangeberry ravenberry rossberry Shawnee blackberry youngberry) Blueberry Cranberry Currant Elderberry Gooseberry Huckleberry Loganberry Raspberry (black red) Salal

TYPES OF APPLICATION Those listed in Section 10 0 plus Spot Treatment (cranberry only) Post-Harvest (cranberry only)

PRECAUTIONS To avoid damage spray solutions of this product must not be allowed to contact desirable vegetation including green shoots canes or foliage 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 30 days between application and harvest of cranberries or a minimum of 14 days for all other berry crops listed here

**Spot Treatment (Cranberry Only)**

USE INSTRUCTIONS Spot treatment may be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas A handheld sprayer or other appropriate application equipment listed in the APPLICATION EQUIPMENT AND TECHNIQUES section of this label may be used Drop water level to remove standing water in ditches prior to application With a handheld sprayer apply a 1 to 1.5 percent solution of this product adequately to wet the vegetation only do not spray to the point of 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 application and harvest of cranberries Do not apply by air Do not apply directly to water Use nozzles that produce medium- to large sized droplets to minimize spray drift and avoid crop injury

**Post Harvest (Cranberry Only)**

USE INSTRUCTIONS This product may be applied after cranberries have been harvested to control weeds growing in the field Apply this product to vines that appear 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 0.4 to 0.7-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 44 to 86 fluid ounces 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 application and next harvest of cranberries Do not apply by air Do not apply directly to water

**10 2 Citrus Fruit Crops**

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

TYPES OF APPLICATION Those listed in Section 10 0

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

## II MAIN LABEL FOR FOOD CROP USES

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

**Perennial weeds**

S = Suppression

B = Burndown

PC = Partial control

C = Control

WEED SPECIES	[INSERT BRAND NAME] (Rate per Acre)			
	0.7 QT	1.3 QT	2 QT	3.3 QT
Bermudagrass	B	--	PC	C
Guineagrass				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	-	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	-	PC	C

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 Apple Crabapple Loquat Mayhaw Pear (including Oriental pear) Quince

TYPES OF APPLICATION Those listed in Section 10.0

RESTRICTIONS Allow a minimum of 1 day between application and harvest in pome fruit crops

**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 of this product and harvest in stone fruit crops 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

## II MAIN LABEL FOR FOOD CROP USES

### 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 Ilima 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 (roots and leaves) 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 of all other tropical or subtropical tree fruit listed here In coffee and banana delay application 3 months after transplanting to allow the new coffee or banana plant to become established

#### Bananacide (Banana Only)

USE INSTRUCTIONS This product may be used to destroy banana plants infected with the Banana Bunchy Top Virus as well as non infected banana plants in order to establish a disease free buffer around a plantation Remove all fruit from the plants within the area prior to treatment Inject 0 04 fluid ounce (1 milliliter) of this concentrated product (undiluted) for every 2 to 3 inches of pseudostem diameter of the banana plant Make the injection at least one foot above the ground except for very small plants which can be injected vertically into the top Any subsequent re growth must also be destroyed Mechanically destroy all plants and mats (or units) within a 4 foot radius around a treated mat

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

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 3 months before applying this product for weed control

### 10 7 Vine Crops

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

TYPES OF APPLICATION Those listed in Section 10 0

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

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

RESTRICTIONS Allow a minimum of 14 days between application and harvest of vine crops Do not use selective equipment in kiwi

### 10 8 Miscellaneous Tree Food Crops

LABELED CROPS Cactus (all including prickly pear and dragon fruit fruit and pads) Palm (heart leaves oil)

TYPES OF APPLICATION Those listed in Section 10 0

## II MAIN LABEL FOR FOOD CROP USES

### 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

RESTRICTIONS DO NOT apply this product as a broadcast application over the top of plantations or tree crops

#### 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 the control of tough weeds or those specified on separate supplemental labeling for this product supersede rates listed in the ANNUAL WEEDS RATE SECTION PERENNIAL WEEDS RATE SECTION and WOODY BRUSH AND TREES RATE SECTION of this label Additional information on the control of tough weeds can be found 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

## II MAIN LABEL FOR FOOD CROP USES

**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 6 to 8 fluid ounces of this product per acre in the spring when alfalfa is dormant after spring temperatures have warmed enough to encourage 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 Any crop injury is the sole responsibility of the applicator 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 established stands of any forage legumes listed in this section Application may be made at any time of the year to control annual and perennial weeds including quackgrass For control of quackgrass apply in the spring late summer or fall when quackgrass is actively growing 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 44 fluid ounces of this product per acre in alfalfa and up to 32 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 Remove domestic livestock before application Preharvest application on alfalfa grown for seed could result in a reduction in germination or vigor Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on alfalfa grown for seed

**RESTRICTIONS** Make only one application to an existing crop stand per year 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 Application Rate (per acre)	Minimum Interval Between Application and Harvest or Livestock Grazing
Alfalfa	44 fluid ounces	36 hours
All other legumes listed	32 fluid ounces	3 days

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)**



## II MAIN LABEL FOR FOOD CROP USES

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

### Renovation (Rotating Out of CRP), Site Preparation

USE INSTRUCTIONS This product may be used to prepare CRP land for crop production Refer to Federal State or local use guides for CRP renovation information

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

### 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 5 to 8 fluid ounces of this product per acre in early spring before desirable CRP grasses such as crested and tall wheatgrass break dormancy and initiate green growth Late fall application may be made after desirable perennial grasses have reached dormancy

PRECAUTIONS Some stunting of CRP perennial grasses will occur if broadcast application is made when plants are not dormant

RESTRICTIONS No waiting period is required between application and grazing or harvesting for feed Do not apply more than 2 quarts of this product per acre per year onto CRP land

### 11.3 Grass Seed and Sod Production

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

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

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

USE INSTRUCTIONS This product controls most existing vegetation for purposes of renovating turf or forage grass seed production areas or for establishing turfgrass grown for sod It may be used to destroy undesirable grass vegetation when production fields are converted to alternate species or crops 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 For maximum control of existing vegetation delay planting to determine if any re-growth of underground plant parts will occur Where existing vegetation is growing under mowed turfgrass management apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the herbicide spray Where repeat applications are necessary sufficient re-growth must be attained prior to application For warm-season grasses such as bermudagrass summer or fall application provides best control Broadcast application of this product may be used to control sod remnants or other unwanted vegetation after sod is harvested Application rates of up to 3.3 quarts per acre may be used to totally remove an established stand of tough to kill grass species

RESTRICTIONS If application rate is 2 quarts per acre or less no waiting period between application and feeding or livestock grazing is required If the rate is greater than 2 quarts per acre remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting Crops listed

## II MAIN LABEL FOR FOOD CROP USES

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

**PRECAUTIONS** Contact of this product in any manner to any vegetation to which application is not intended could cause damage Such damage shall be the sole responsibility of the applicator

### Wiper Applicator

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

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

### Spot Treatment

**USE INSTRUCTIONS** Apply a 1 percent solution of this product using a 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 grass 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** Apply 11 to 22 fluid ounces of this product per acre Best results are obtained when application is made before ryegrass reaches 6 inches in height Use the higher application rate within this range when ryegrass is greater than 6 inches in height Set nozzle height to allow the establishment of the desired row spacing Use low pressure nozzles or drop nozzles designed to target the application over a narrow band

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

**TYPES OF APPLICATION** Preplant Preemergence Pasture Renovation Spot Treatment Wiper Applicator Postemergence Weed Control (broadcast application)

### Preplant, Preemergence, Pasture Renovation

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

## II MAIN LABEL FOR FOOD CROP USES

**RESTRICTIONS** If application rates total 2 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 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. Application may be repeated in the same area at 30 day intervals. See additional instructions on the use of wiper applicators in the **APPLICATION EQUIPMENT AND TECHNIQUES** section of this label.

**RESTRICTIONS** For spot treatment or use with a wiper applicator at rates of 2 quarts per acre or less this product may be applied over the entire pasture or any portion of it. At rates above 2 quarts per acre this product may be applied over no more than 10 percent of the total pasture at any one time.

### **Postemergence Weed Control (Broadcast Application)**

**USE INSTRUCTIONS** This product may be applied to pastures to suppress competitive growth and seed production of annual weeds and other undesirable vegetation. For selective weed control using broadcast application equipment apply 8 to 11 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Some stunting of perennial grasses will occur if broadcast application is made when plants are not dormant. Higher application rates to control tough-to-control weeds may be used however injury will occur if perennial grasses are no longer dormant and will cause stand reductions. Late fall application may be made after desirable perennial grasses have reached dormancy.

**RESTRICTIONS** No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2 quarts of this product per acre per year onto pasture grasses except for renovation 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 after application to allow desirable perennials to grow flower and re-seed the area.

Apply 8 to 11 fluid ounces of this product per acre to control or suppress many weeds including downy brome cheatgrass cereal rye and jointed goatgrass in rangelands. Apply when most mature brome plants are in early flower and before the plants including seed heads turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Apply in the fall to areas where spring moisture is usually limited and fall germination allows for good weed growth.

For control of medusahead apply 11 fluid ounces of this product per acre at the 3 leaf stage. Delaying application beyond this stage will result in reduced or unacceptable control. Controlled burning prior to application can be useful in eliminating the thatch layer produced by slowly decaying culms. Allow new

## II MAIN LABEL FOR FOOD CROP USES

growth to occur before applying this product after a burn Repeat applications in subsequent years are necessary to eliminate the seed bank before re establishing desirable perennial grasses in medusahead-dominated rangeland

**RESTRICTIONS** Do not use ammonium sulfate when applying this product on rangeland grasses No waiting period between application and feeding or livestock grazing is required Do not apply more than 2 quarts of this product per acre per year

### 12 0 ROUNDUP READY CROPS

ROUNDUP READY CROPS CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO GLYPHOSATE THE ACTIVE INGREDIENT IN THIS PRODUCT THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO CROPS THAT ARE NOT GLYPHOSATE TOLERANT AVOID CONTACT OF THIS PRODUCT WITH FOLIAGE GREEN STEMS OR FRUIT OF CROPS OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE AS SEVERE PLANT INJURY OR DESTRUCTION WILL RESULT Information on Roundup Ready crops can be obtained from your seed supplier or Monsanto 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 RANGELANDS sections of this label which do not contain a glyphosate-tolerance gene

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

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

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

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

**Ground broadcast application** – Apply this product in 5 to 20 gallons of spray solution per acre Select proper nozzles and spray pressure settings to avoid spraying a fine mist For best results with ground application equipment use flat fan nozzles Check for even distribution of spray droplets

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**Aerial application** – 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 all tank mix product formulations for compatibility, antagonism or product performance. Buyer and all users are responsible for any and all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not specifically listed on this label or on separate supplemental labeling or Fact Sheets for this product. See the MIXING section of this label for more information on tank mixtures.

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

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

**NOTE** The following use directions are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no till and stale seedbed systems, apply this product as a preplant burndown 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, burcucumber, and giant ragweed with multiple germination times or suppressed (stunted) weeds might require a second application of this product for complete control. Make second application after some re-growth has occurred and a minimum of 10 days after a previous application of this product.

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

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12.1 Roundup Ready Alfalfa

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

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

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

NEW STAND ESTABLISHMENT (Seeding Year) Application Rates	
<b>Prior to First Cutting</b>	
From emergence up to 4 trifoliolate leaves	22 to 44 fluid ounces per acre
From 5 trifoliolate leaves up to 5 days before first cutting	Up to 44 fluid ounces per acre
<b>After First Cutting</b>	
In crop application per cutting up to 5 days before cutting	Up to 44 fluid ounces per acre

TANK MIXTURES Up to 44 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

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weeds Ensure that the product used in the tank mix is labeled for application postemergence (in-crop) to alfalfa  
alfalfa Read and follow label directions for all products in the tank mixture

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

clethodim imazamox imazethapyr sethoxydim quizalofop p ethyl

Assure II Poast Prism Pursuit Raptor SelectMAX]

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

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

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

**TANK MIXTURES** This product may be applied postemergence (in-crop) over the top of established stands of Roundup Ready alfalfa in tank mixtures described below according to the growing condition of the crop Ensure that the 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 44 fluid ounces per acre in a tank mixture with the following herbicides

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

clethodim imazamox imazethapyr sethoxydim quizalofop p ethyl

Assure II Poast Prism Pursuit Raptor SelectMAX]

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

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

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

imazamox imazethapyr metribuzin pronamide propyzamide

Kerb 50 W Lexone Pursuit Raptor Sencor]

*[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

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RESTRICTIONS Do not exceed 44 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 1 quarts (132 fluid ounces) per acre Do not apply to frozen or snow covered ground Remove domestic livestock before application Wait a minimum of 5 days after application before grazing or cutting and feeding of forage and hay

12.2 Roundup Ready Canola (Spring Varieties)

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

TYPES OF APPLICATION Preplant At Planting Preemergence Postemergence (In crop) 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 of all Preplant At-Planting Preemergence applications	44 fluid ounces per acre
Total of all In crop applications from emergence to 6-leaf stage	22 fluid ounces per acre

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 44 fluid ounces per acre per season

Postemergence (In-crop)

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

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

Sequential Application – Apply 11 fluid ounces of this product per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days but no later than the 6-leaf stage Sequential application works best for control of early emerging annual and perennial weeds such as Canada thistle and quackgrass or whenever more than one application is needed for adequate weed control

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

Postemergence (In crop) in Hybrid Seed Production Only



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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 11 and 22 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 line(s) up to a maximum total application rate of 22 fluid ounces per acre This application may be made in both spring and winter varieties of canola

**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 22 fluid ounces per acre

### 12.3 Roundup Ready Canola (Winter Varieties)

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

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

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

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

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 require 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

**Single Application** – Apply 16 to 22 fluid ounces of this product per acre in the fall when weeds are small and actively growing Use the higher rate within this range when weed densities are high when weeds have overwintered or when weeds become large and well established Application of more than 16 fluid

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ounces per acre prior to the 6 leaf stage could result in reduced crop growth in the fall. Avoid spray overlaps as this could result in temporary yellowing and/or growth reduction.

**Sequential Application** – Apply 11 to 22 fluid ounces of this product per acre to 2-leaf or larger canola in the fall followed by a sequential application at the same rate and at a minimum interval of 60 days but before bolting in the spring. Sequential application works best for control of early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds a sequential application might be required 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 44 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 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 refer only to 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	5.3 quarts per acre
Total of all Preplant, At Planting, Preemergence applications	3.3 quarts per acre
Maximum single In-crop application rate up to 48 inch corn	32 fluid ounces per acre
Total of all In-crop applications from emergence through 48-inch corn	64 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*	22 fluid ounces per acre

\*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.

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**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.

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

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

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

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**RESTRICTIONS** Maximum quantity of this product that may be applied for all preplant at planting and preemergence applications combined is 3.3 quarts per acre per season. Application of 2,4-D or dicamba must be made a minimum of 7 days prior to planting corn.

**NOTE** For maximum weed control, make a postemergence (in-crop) application of this product following the use 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 (free standing) 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 (free standing), 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 32 fluid ounces per acre. Total in-crop application of this product from corn plant emergence through 48 inches in height must not exceed 64 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 16 to 22 fluid ounces of this product per acre before weeds exceed 4 inches in height (before they become competitive with the crop). Repeat this application before new flushes of weeds exceed 4 inches in height.

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

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

2,4-D, acetochlor, alachlor, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac, pentyl ester, foramsulfuron, halosulfuron-methyl, iodosulfuron, methyl-

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sodium isoxaflutole mesotrione nicosulfuron rimsulfuron trembotrione thiencazone-methyl thifensulfuron methyl topramezone

Aim EC Banvel Basis Basis Gold Bullet Callisto Capreno Clarity Corvus Degree Degree Xtra Distinct Equip Harness Harness Xtra Harness Xtra 5 6L Hornet Impact Laudis Marksman Micro-Tech Option Resolve Resource Shark Status TripleFLEX Warrant]

Tank-mix Partner	Maximum Height of Corn at Application
Degree Degree Xtra Harness Harness Xtra Harness Xtra 5 6L	11 inches
Bullet* Micro Tech*	5 inches
atrazine	12 inches

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

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 Apply up to 22 fluid ounces of this product per acre 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 44 fluid ounces of this product per acre Allow a minimum of 7 days between application and harvest or feeding of corn stover or grain

**Post Harvest**

USE INSTRUCTIONS This product may be applied for weed control after crop harvest Higher rates might be required for control of large weeds that were growing in the 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 (RHS) 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 as an over the top broadcast application at rates of between 11 and 44 fluid ounces per acre for tassel control in RHS corn inbred recipient lines in seed

II MAIN LABEL FOR FOOD CROP USES

production fields planted with corn containing Roundup Ready 2 Technology as the pollen donor at any growth stage including growth stages later than V8 Multiple applications may be made for tassel control

RESTRICTIONS The maximum combined total amount of this product that may be applied per year including for weed control and tassel control is 5.3 quarts per acre DO NOT use corn fodder forage grain or stover for food or feed or allow it to be grazed when this product has been applied for tassel control DO NOT process harvested corn grain or resulting seed for food or feed when this product has been applied for tassel control

**12.5 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 refer only to SWEET CORN hybrids with Roundup Ready 2 Technology [Alternative text The directions for use in this section refer only to 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	5.3 quarts per acre
Total of all Preplant At-Planting Preemergence applications	3.3 quarts per acre
Maximum single In crop application rate up to 48-inch sweet corn	4.4 fluid ounces per acre
Total of all In crop applications from emergence through 48 inch sweet corn	4.1 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 one of 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

[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients

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that at the time of printing are registered for use preplant at-planting and/or preemergence to sweet corn

acetochlor alachlor atrazine carfentrazone ethyl dimethenamid p metolachlor s-metolachlor

Aim EC Bicep II MAGNUM Bicep Lite II MAGNUM Bullet Cinch Cinch ATZ Degree Degree Xtra Dual MAGNUM FulTime Guardsman MAX Harness Harness Xtra Harness Xtra 5 6L Keystone Keystone LA Lariat Me-Too Lachlor II Micro Tech Outlook TopNotch]

RESTRICTIONS Maximum quantity of this product that may be applied for all preplant at-planting and preemergence applications combined is 3 3 quarts per acre per season

Postemergence (In crop)

USE INSTRUCTIONS Apply this product alone or in a tank mixture over the top of [Alternative 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 44 fluid ounces per acre Total in-crop application of this product from emergence through 48 inches in height must not exceed 4 1 quarts (132 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 16 to 22 fluid ounces of this product per acre before weeds exceed 4 inches in height or before they become competitive with the crop If new flushes of weeds occur a sequential application of 16 to 22 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

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

atrazine carfentrazone-ethyl foramsulfuron trembotrione tropamezone

Aim EC Callisto Impact Laudis Option]

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 6 Roundup Ready Cotton

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

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

Maximum Application Rates	
Combined total per year for all applications	5 3 quarts per acre

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Total of all Preplant At-Planting Preemergence applications	3.3 quarts per acre
Total of all In crop applications from cracking to layby	2.5 quarts per acre
Maximum Preharvest application rate	44 fluid ounces per acre
Combined total of all In-crop applications from emergence through harvest	4 quarts per acre

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.

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

acetochlor, clomazone, diuron, flumioxazin, fluometuron, fomesafen, metolachlor, s-metolachlor, norflurazon, pendimethalin, prometryn, pyriproxyfen, saflufenacil

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

**RESTRICTIONS** Maximum quantity of this product that may be applied for all preplant, at-planting, and preemergence applications combined is 3.3 quarts per acre per season.

**Postemergence (In-crop)**

**USE INSTRUCTIONS** This product may be applied over the top of Roundup Ready cotton (in-crop) at rates up to 22 fluid ounces per acre per application from 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-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.

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

acetochlor, clethodim, fluazifop-P-butyl, fomesafen, metolachlor, s-metolachlor, monosodium acid methanearsonate, pyriproxyfen, sodium, quizalofop-P-ethyl, sethoxydim, trifloxysulfuron sodium

## II MAIN LABEL FOR FOOD CROP USES

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

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

**Salvage Treatment** – This application may be made after the 4-leaf stage of development and only when weeds threaten to cause the loss of the crop Apply 22 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 32 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 2.5 quarts per acre per season Allow a minimum of 7 days between application and harvest of cotton DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT (OTHER THAN THOSE CONTAINED IN ANY TANK MIX PRODUCT) FOR OVER THE TOP APPLICATION TO ROUNDUP READY COTTON

**Selective Equipment (In crop)**

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

**TANK MIXTURES** This product 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

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

carfentrazone ethyl diuron flumioxazin fluometuron linuron metolachlor monosodium acid methanearsonate pendimethalin prometryn pyriithiobac-sodium trifloxysulfuron sodium

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

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[*Optional text* Staple 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 2.5 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



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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 Apply up to 44 fluid ounces of this product per acre after 20 percent boll crack for annual and perennial weed control prior to crop harvest

**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

RESTRICTIONS Allow a minimum of 7 days between application and harvest of cotton DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PREHARVEST APPLICATION TO ROUNDUP READY COTTON

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

**12.7 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	5.3 quarts per acre
Total of all Preplant At-Planting Preemergence applications	3.3 quarts per acre
Total of all In-crop applications from cracking to 60 percent open bolls	4 quarts per acre
Total of all In-crop applications between layby and 60 percent open bolls	44 fluid ounces per acre
Total of all In crop applications from 60 percent open bolls to 7 days prior to harvest	44 fluid ounces per acre
Total of all In crop applications from emergence through harvest	4 quarts per acre

II MAIN LABEL FOR FOOD CROP USES

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

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

acetochlor clomazone diuron flumioxazin fluometuron fomesafen metolachlor s-metolachlor norflurozon pendimethalin prometryn pyriothiac-sodium saflufenacil

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

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**RESTRICTIONS** Maximum quantity of this product that may be applied for all preplant at planting and preemergence applications combined is 3 3 quarts per acre per season

**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 22 fluid ounces per acre to control or suppress 1 to 3 inch tall annual grasses and broadleaf weeds This product may be applied postemergence to Roundup Ready Flex cotton using ground application equipment at rates up to 32 fluid ounces per acre per application In addition to broadcast application post directed spray equipment may be used to achieve more thorough weed coverage

**IN THE STATE OF ARIZONA ONLY** up to 44 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 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

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

acetochlor clethodim fluazifop P butyl fomesafen metolachlor s metolachlor monosodium acid methanearsonate pyriothiac sodium quizalofop p ethyl sethoxydim trifloxysulfuron sodium

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

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

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

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

carfentrazone ethyl diuron flumioxazin fluometuron linuron metolachlor monosodium acid methanearsonate pendimethalin prometyrn pyriithiobac sodium trifloxysulfuron sodium

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

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

RESTRICTIONS The maximum single in-crop application rate of this product to Roundup Ready Flex cotton using ground application equipment is 32 fluid ounces per acre except in the State of Arizona where the maximum application rate is 44 fluid ounces per acre In crop application rates above 22 fluid ounces per acre made alone or with the addition of other crop chemical products containing surfactant could cause a crop response including leaf speckling or leaf necrosis Do not exceed a maximum rate of 22 fluid ounces of this product per acre when using aerial application equipment Between layby and 60 percent open bolls the maximum combined total application rate of this product is 44 fluid ounces per acre The combined total of all applications of this product made from crop emergence to 60 percent open bolls must not exceed 4 0 quarts per acre

DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR OVER THE TOP APPLICATION TO ROUNDUP READY FLEX COTTON

Preharvest

USE INSTRUCTIONS Up to 44 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

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

ATTENTION USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON HOWEVER DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS AGRONOMIC PRACTICES AND OTHER FACTORS IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT EVEN WHEN APPLICATIONS ARE MADE IN 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 Soybean

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

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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	5 3 quarts per acre
Total of all Preplant At Planting Preemergence applications	3 3 quarts per acre
Total of all In crop applications from cracking through flowering (R2 stage soybean)	64 fluid ounces per acre
Maximum preharvest application rate	22 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

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

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

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

RESTRICTIONS Maximum quantity of this product that may be applied for all preplant at-planting and preemergence applications combined is 3 3 quarts per acre per season

**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 22 fluid ounces of this product per acre will control or suppress most 2- to 8 inch tall weeds Weeds will be 2 to 8 inches tall approximately 2 to 5 weeks after planting If the initial application is delayed and weeds are larger apply a

## II MAIN LABEL FOR FOOD CROP USES

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

Application of 22 to 44 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 REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP To control giant ragweed apply 22 fluid ounces of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application

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

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

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

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

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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 64 fluid ounces per acre The maximum rate for any single in crop application is 44 fluid ounces per acre The maximum combined total amount of this product that may be applied during flowering (R2 stage soybean) is 44 fluid ounces per acre

### Preharvest

USE INSTRUCTIONS Apply up to 22 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 required 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

II MAIN LABEL FOR FOOD CROP USES

**12 9 Roundup Ready 2 Yield Soybean**

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

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

Maximum Application Rates	
Combined total per year for all applications	5 3 quarts per acre
Total of all Preplant At Planting Preemergence applications	3 3 quarts per acre
Total of all In crop applications from cracking through flowering (R2 stage soybean)	64 fluid ounces per acre
Maximum Preharvest application rate	22 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

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

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

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

RESTRICTIONS Maximum quantity of this product that may be applied for all preplant at planting and preemergence applications combined is 3 3 quarts per acre per season

**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

## II MAIN LABEL FOR FOOD CROP USES

nodes on the main stem with a fully developed leaf (R3 stage) Refer to the ANNUAL WEEDS RATE SECTION of this label for application rates for specific annual weeds An initial application of 22 fluid ounces of this product per acre will control or suppress most 2- to 8 inch tall weeds Weeds will be 2 to 8 inches tall approximately 2 to 5 weeks after planting If the initial application is delayed and weeds are larger apply a higher rate of this product This product may be applied up to 44 fluid ounces per acre as a single in crop application for control of annual weeds and where dense weed populations exist

Application of 22 to 44 fluid ounce 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 redivine trumpet creeper swamp smartweed and wirestem muhly For best results allow perennial weed species to achieve at least 6 inches of growth before applying this product

Under adverse growing conditions including drought hail or wind damage or a poor soybean stand that slows or delays canopy closure a sequential application of this product might be necessary to control late flushes of weeds IN THE SOUTHERN STATES A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY 2 YIELD SOYBEAN CROP To control giant ragweed apply 22 fluid ounces of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application

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

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

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

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

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**RESTRICTIONS** The combined total application of this product from crop emergence through harvest must not exceed 64 fluid ounces per acre The maximum rate for any single in crop application is 44 fluid ounces per acre The maximum combined total amount of this product that may be applied during flowering (R2 stage soybean) is 44 fluid ounces per acre

### **Preharvest**

**USE INSTRUCTIONS** Apply up to 22 fluid ounces of this product per acre 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 required 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

II MAIN LABEL FOR FOOD CROP USES

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 Sugarbeet**

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

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

Maximum Application Rates	
Combined total per year for all applications	5 3 quarts per acre
Total of all Preplant At-Planting Preemergence applications	3 3 quarts per acre
Total of all applications made from emergence to 8 leaf stage	56 fluid ounces per acre
Total of all applications made between 8-leaf stage and canopy closure	44 fluid ounces per acre

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 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

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

ethofumesate

Norton SC]

RESTRICTIONS Maximum quantity of this product that may be applied for all preplant at planting and preemergence applications combined is 3 3 quarts per acre per season

**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 repeat applications might be required to eliminate crop competition throughout the growing season Refer to the ANNUAL WEEDS RATE SECTION and PERENNIAL WEEDS RATE SECTION in 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



## II MAIN LABEL FOR FOOD CROP USES

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

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

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

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

**RESTRICTIONS** The combined total application of this product from crop emergence through harvest must not exceed 100 fluid ounces per acre The maximum rate for any single application from crop emergence until the 8 leaf stage is 32 fluid ounces per acre The maximum rate for any single application between the 8 leaf stage and canopy closure is 22 fluid ounces per acre Allow a minimum of 30 days between application and sugarbeet harvest

**13 0 SEED PRODUCTION OF GLYPHOSATE TOLERANT CROPS** *[This section is optional for printing on the final printed label]*

THE DIRECTIONS FOR USE IN THIS SECTION ARE INTENDED FOR USE ONLY FOR THE PRODUCTION OF SEED OF GLYPHOSATE-TOLERANT CROPS FOR DIRECTIONS FOR USE ON ROUNDUP READY CROPS GROWN FOR FOOD OR FEED PRODUCTION SEE THE PRECEEDING ROUNDUP READY CROPS SECTION OF THIS LABEL

Do not combine these directions for use with any other directions for use for the crop on this or any other glyphosate-containing product label unless otherwise directed on this label

Read 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

**13 1 Seed Production of Rice with a Roundup Ready Gene**

THIS PRODUCT MAY BE USED FOR CONTROL OF NON GLYPHOSATE TOLERANT RICE IN SEED PRODUCTION FIELDS OF RICE CONTAINING A GLYPHOSATE TOLERANCE GENE APPLICATION OF THIS PRODUCT ON RICE VARIETIES THAT DO NOT CONTAIN A GLYPHOSATE-TOLERANCE GENE WILL CAUSE SEVERE CROP INJURY OR DEATH

**USE INSTRUCTIONS** Apply up to 44 fluid ounces of this product in 5 to 20 gallons of spray solution per acre as a broadcast application to seed production fields of rice containing a glyphosate-tolerance gene anytime from emergence to harvest to control non-glyphosate-tolerant plants A second application of up to 44 fluid ounces per acre may be applied if additional control of non glyphosate tolerant plants is needed

**RESTRICTIONS** DO NOT apply more than 2.5 quarts of this product per acre per season DO NOT harvest glyphosate tolerant rice for use or processing as food or feed or allow the crop to be grazed

**13 2 Seed Production of Wheat with a Roundup Ready Gene**

THIS PRODUCT MAY BE USED FOR CONTROL OF NON GLYPHOSATE TOLERANT WHEAT IN SEED PRODUCTION FIELDS OF WHEAT CONTAINING A GLYPHOSATE TOLERANCE GENE APPLICATION OF THIS PRODUCT ON WHEAT VARIETIES THAT DO NOT CONTAIN A GLYPHOSATE TOLERANCE GENE WILL CAUSE SEVERE CROP INJURY OR DEATH

**USE INSTRUCTIONS** Apply up to 22 fluid ounces of this product in 5 to 20 gallons of spray solution per acre as a broadcast application to seed production fields of wheat containing a glyphosate-tolerance gene

**II MAIN LABEL FOR FOOD CROP USES**

anytime from emergence to harvest to control non glyphosate-tolerant plants. A second application of up to 22 fluid ounces per acre may be applied if additional control of non glyphosate tolerant plants is needed.

**RESTRICTIONS** DO NOT apply more than 44 fluid ounces of this product per acre per season. DO NOT harvest glyphosate tolerant wheat for use or processing as food or feed or allow the crop to be grazed.

**14 0 FARMSTEAD USES**

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

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

**14 1 Farmstead Weed Control, Trim and-Edge**

**USE INSTRUCTIONS** This product may be used to control annual weeds, perennial weeds and woody brush found on any part of the farmstead including around building foundations and equipment storage areas along and in fences, in dry ditches and canals along ditch banks, driveways, farm roads, farmyards, fence rows, 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.

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

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

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

For annual weeds, apply 22 fluid ounces of this product per acre when weeds are less than 6 inches tall, 32 fluid ounces per acre when weeds are 6 to 12 inches tall and 44 fluid ounces per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 44 fluid ounces to 3.3 quarts per acre in a tank mix 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 of this label under Annual Weeds—Handheld and Backpack Sprayers for the required concentration of this product in the mix.

**14 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 when applying this product inside a greenhouse or shadehouse until the application solution has dried. Do not use inside residential greenhouses.

## II MAIN LABEL FOR FOOD CROP USES

### 14 3 Chemical Mowing

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

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

### 14 4 Cut Stump Application

**TYPES OF USES** Treating cut 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 best 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 product and method of application 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.

### 14 5 Habitat Management

**TYPES OF USES** Habitat Restoration and Maintenance Wildlife Food Plots

#### Habitat Restoration and Maintenance

**USE INSTRUCTIONS** This product may be used to control exotic and other undesirable vegetation in habitat management areas. Application may be made to allow recovery of native plant species or prior to planting desirable native species and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatment may be used to selectively remove unwanted plants for habitat maintenance and enhancement.

#### Wildlife Food Plots

**USE INSTRUCTIONS** This product may be used 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 tillage.

**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.

## 15 0 ANNUAL WEEDS RATE SECTION

II MAIN LABEL FOR FOOD CROP USES

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

- 22 fluid ounces per acre – grass and broadleaf annual weeds less than 6 inches in height or circumference and vines less than 3 inches in length
- 32 fluid ounces per acre – grass and broadleaf annual weeds 6 to 12 inches in height or circumference and vines 3 to 6 inches in length
- 44 fluid ounces per acre – 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 AS FOLLOWS IN THE ‘ ANNUAL WEEDS RATE TABLE ’**

Apply to actively growing annual weeds Annual weeds are often easiest to control when they are small

Older mature (hardened) and otherwise tough to control annual weed species could require higher rates than specified in this table to be controlled even if they meet the size requirements listed This product may be applied at rates of up to 44 fluid ounces per acre for tough-to control 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 using these rates unless otherwise directed

For weeds that have been mowed grazed or cut allow re growth to occur prior to application of this product

**ANNUAL WEEDS RATE TABLE**

Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	11	16	22	27	32
	Maximum Height/Length (inches)				
Ammannia purple	3	6	12		18
Anoda spurred		2	3	5	8
Barley	18	18 +			
Barnyardgrass		3	6	7	9
Bassia fivehook	-	-	6		
Beggarweed Florida	-	5	8		
Bittercress	12	20	-		
Bluegrass annual	10	-	-		
Bluegrass bulbous	6	-			
Brome downy <sup>1,2</sup>	6	12	-		
Brome Japanese	6	12	24		

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Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	11	16	22	27	32
	Maximum Height/Length (inches)				
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 manna grass	8	12			-
Eclipta	-	4	8	12	-
Fall panicum	4		6		12
Falsedandelion	-	20			-
Falseflax smallseed	12	-			-
Fiddleneck	-	6	12		
Field pennycress	6	12			-
Filaree	-		6		12
Fleabane annual	6	20			
Fleabane hairy* ( <i>Conyza bonariensis</i> )	-	-	6		10
Fleabane rough	3	6	12		-
Florida pusley		-	4		6
Foxtail giant bristly yellow	6	12	20		
Foxtail Carolina	10	-		-	-
Foxtail green	12				
Goatgrass jointed	6	12			
Goosegrass	-	3	6		12
Grain sorghum (milo)	6	12	20		-
Groundcherry	-	3	6		9

## II MAIN LABEL FOR FOOD CROP USES

Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	11	16	22	27	32
	Maximum Height/Length (inches)				
Groundsel common cressleaf	-	6	10	-	
Hemp sesbania	-	2	4	6	8
Henbit			6	-	12
Horseweed/ Marestalk* ( <i>Conyza canadensis</i> )		6	12	-	18
Itchgrass	6	8	12		18
Jimsonweed		-	12	-	18
Johnsongrass seedling*	6	12	18		24
Junglerice	-	3	6	7	9
Knotweed	-	-	6		12
Kochia* <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 ( <i>Ipomoea</i> 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*		6	12	-	18
Ragweed giant*		6	12		18
Red rice	-	-	4		
Rye volunteer/cereal <sup>2</sup>	6	18	18 +		
Ryegrass species*		-	6		12
Sandbur field	6	12	-		
Sandbur longspine	6	12	-		
Shattercane	6	12	20		
Shepherd s-purse	6	12	-		
Sicklepod	-	2	4		8
Signalgrass broadleaf		3	6	7	9
Smartweed ladysthumb			6		9
Smartweed Pennsylvania			6		9
Sowthistle annual	-		6		12
Spanishneedles	-		6		12
Speedwell purslane	12	-	-		
Sprangletop	6	12	20		

II MAIN LABEL FOR FOOD CROP USES

Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	11	16	22	27	32
	Maximum Height/Length (inches)				
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 <sup>5</sup>	-	6	12	-	
Velvetleaf	-	-	6	-	12
Virginia pepperweed		18		-	
Waterhemp*			6	-	12
Wheat <sup>2</sup>	6	12	18	-	
Wheat (overwintered)		6	12	-	18
Wild oats	3	6	18		-
Wild proso millet	-	6	12	-	18
Witchgrass	-	12			
Woolly cupgrass	-	6	12		
Yellow rocket	-	12	20		-

- <sup>1</sup> For control of downy brome in no-till systems apply 16 fluid ounces of this product per acre
- <sup>2</sup> Performance of this product is better if application is made before this weed reaches the boot stage of growth
- <sup>3</sup> Apply 16 fluid ounces of this product per acre to control wild buckwheat in the cotyledon to 2 leaf stage Apply 22 fluid ounces per acre to control 2 to 4-leaf wild buckwheat For better control of wild buckwheat over 2 inches in size make sequential applications of 22 fluid ounces followed by 22 fluid ounces of this product per acre
- <sup>4</sup> Do not apply when kochia is in the button stage
- <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
- \* A glyphosate-resistant biotype has been confirmed For additional information refer to the WEED RESISTANCE MANAGEMENT section of this label You may also visit on the Internet [www.weedscience.org](http://www.weedscience.org) or [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com) or contact your Monsanto Company representative

**15 1 Annual Weeds—Tank Mixtures with 2,4 D, Dicamba or Tordon 22K**

Better control of certain tough weeds can be achieved by tank mixing this product with 0.25 pound of dicamba or 0.5 pound of 2,4 D or 1 to 2 fluid ounces of Tordon 22K per acre. These other herbicides combined with the rate of this product specified in the ANNUAL WEEDS RATE TABLE will control the following weeds up to the maximum height or length indicated: 6 inches—prickly lettuce, marehail/horseweed, morning glory, kochia (in a tank mix with dicamba only), wild buckwheat (in a tank

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mix with Tordon 22K only) 12 inches—cocklebur lambsquarters pigweed Russian thistle (in a tank mix with 2 4 D only)

At rates given in the ANNUAL WEEDS RATE SECTION this product will control the following weeds up to a maximum height or length of 6 inches common ragweed giant ragweed Pennsylvania smartweed and velvetleaf For better control tank mix this product with 0 5 pound of 2 4-D per acre

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

**15 2 Annual Weeds—Handheld and Backpack Sprayers**

For control of weeds listed in the ANNUAL WEEDS RATE TABLE apply a 0 4 percent solution of this product to weeds less than 6 inches in height or runner length prior to seed head 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 7 percent solution

For best results apply a 1 5 percent solution of this product on harder-to-control perennials such as bermudagrass dock field bindweed hemp dogbane milkweed and Canada thistle

When using application methods that result in less than complete coverage apply a 4 percent solution of this product for control of annual and perennial weeds and a 4- to 7 percent solution for woody brush and trees

**15 3 Annual Weeds—Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems**

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

Application of 16 to 20 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds barnyardgrass (requires 20 fluid ounces of this product for control) downy brome green foxtail lambsquarters prickly lettuce tansy mustard pigweed field sandbur stinkgrass Russian thistle volunteer wheat witchgrass and kochia (add 0 12 pound of dicamba for control) Ensure that the atrazine or dicamba product used is labeled for application on the desired site Follow all precautions and limitations on the tank-mix product label including application timing restrictions soil restrictions minimum re cropping interval and rotational guidelines

**16 0 PERENNIAL WEEDS RATE SECTION**

Apply to actively growing perennial weeds If weeds have been mowed or tilled do not apply this product until plants have resumed active growth and have reached the specified stage

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

Unless otherwise directed allow a minimum of 7 days after application before soil tillage

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

**PERENNIAL WEEDS RATE TABLE**



II MAIN LABEL FOR FOOD CROP USES

<b>Weed Species</b>	<b>Broadcast Rate (quarts/acre)</b>	<b>Water Volume (gallons/acre)</b>	<b>Handheld Sprayer Concentration (% Solution)</b>
<b>Alfalfa</b>	1 – 1.5	3 – 10	1.5%
Apply after last hay cutting in the fall and alfalfa has re grown to a height of 6 to 8 inches or more Follow with deep tillage after a minimum of 7 days after application but before soil freeze-up			
<b>Alligatorweed</b>	3	3 – 20	1%
For partial control apply when most plants are in bloom More than one application will be required to achieve control			
<b>Anise (fennel)<sup>1</sup></b>	–	–	1 – 1.5%
<b>Bahiagrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Bentgrass</b>	1	10 – 20	1.5%
For suppression in grass seed production areas using ground application equipment only Ensure entire crown area has resumed growth prior to a fall application Ensure that bentgrass has at least 3 inches of growth before application Avoid tillage prior to application Tillage 7 to 10 days after application provides best results			
<b>Bermudagrass</b>	2 – 3.3	3 – 20	1.5%
For control apply 3.3 quarts of this product per acre when bermudagrass is actively growing and seed heads are present More than one application might be necessary to achieve control For partial control apply 64 fluid ounces per acre			
<b>Bermudagrass, water (knotgrass)</b>	0.7 – 1	5 – 10	1.5%
Apply 32 fluid ounces of this product in 5 to 10 gallons of water per acre when water bermudagrass is 12 to 18 inches in length Allow a minimum of 7 days after application before tilling flushing or flooding the field			
For fall application till fallow fields and apply 22 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 California for use on water bermudagrass			
<b>Bindweed, field</b>	0.4 – 3.3	3 – 20	1.5%
Do not apply this product when field bindweed is under drought stress as good soil moisture is necessary for active growth			
For control apply 2.5 to 3.3 quarts of this product per acre west of the Mississippi River and 2 to 2.5 quarts per acre east of the Mississippi River when bindweed is at or beyond full bloom For best results apply in late summer or fall Fall application must be made before a killing frost			
Also for control apply 44 fluid ounces of this product plus 0.5 pound of dicamba in 10 to 20 gallons of water per acre Do not apply this mixture using aerial application equipment			
For suppression on irrigated agricultural land apply 22 to 44 fluid ounces of this product plus 1 pound of 2,4-D in 10 to 20 gallons of water per acre using ground application equipment only Application may be made following harvest or 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 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre using ground application equipment or in 3 to 5 gallons of water per acre using aerial application equipment Apply by air in fallow and reduced tillage systems only Delay application until			

## II MAIN LABEL FOR FOOD CROP USES

<b>Weed Species</b>	<b>Broadcast Rate</b> (quarts/acre)	<b>Water Volume</b> (gallons/acre)	<b>Handheld Sprayer Concentration</b> (% Solution)
maximum emergence has occurred and vines are between 6 to 18 inches in length <b>In California only</b> apply 22 fluid ounces to 33 quarts of this product per acre Actual rate needed for suppression or control will vary within this range depending on local conditions For suppression on irrigated land where annual tillage is performed apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre when bindweed has reached a length of 12 inches or more Allow maximum weed emergence and runner growth Allow a minimum of 3 days after application before tillage			
<b>Bluegrass, Kentucky</b>	0.7 – 1.5	3 – 40	1.5%
Apply 44 fluid ounces of this product in 10 to 40 gallons of water per acre when most plants have reached boot to early seed head stage of development For partial control in pasture or hay crop renovation apply 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing plants when most have reached 4 to 12 inches in height			
<b>Blueweed, Texas</b>	2 – 3.3	3 – 40	1.5%
Apply 2.5 to 3.3 quarts of this product per acre west of the Mississippi River or 2 to 2.5 quarts per acre east of the Mississippi River when plants are at or beyond full bloom New leaf development indicates active growth For best results apply in late summer or fall Fall application must be made before a killing frost			
<b>Brackenfern</b>	2 – 3	3 – 40	1%
Apply to fully expanded fronds that are at least 18 inches long			
<b>Bromegrass, smooth</b>	0.7 – 1.5	3 – 40	1.5%
Apply 44 fluid ounces of this product in 10 to 40 gallons of water per acre when most plants have reached boot to early seed head stage of development For partial control in pasture or hay crop renovation apply 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing plants when most have reached 4 to 12 inches in height			
<b>Bursage, woolly-leaf</b>	–	3 – 20	1.5%
For control apply 44 fluid ounces of this product plus 0.5 pound of dicamba per acre when plants are producing new active growth that has been initiated by moisture for at least 2 weeks and are at or beyond flowering For partial control apply 22 fluid ounces of this product plus 0.5 pound of dicamba per acre			
<b>Canarygrass, reed<sup>2</sup></b>	1.5 – 2	3 – 40	1.5%
<b>Cattail<sup>2</sup></b>	2 – 3.3	3 – 40	1.5%
<b>Clover, red, white<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
Also for control apply 11 to 22 fluid ounces of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre			
<b>Cogongrass</b>	2 – 3.3	10 – 40	1.5%
Apply 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			
<b>Dallisgrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Dandelion<sup>1</sup></b>	2 – 3.3	3 – 40	1.5%

II MAIN LABEL FOR FOOD CROP USES

<b>Weed Species</b>	<b>Broadcast Rate (quarts/acre)</b>	<b>Water Volume (gallons/acre)</b>	<b>Handheld Sprayer Concentration (% Solution)</b>
Also for control apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre			
<b>Dock, curly<sup>1</sup></b>	2 – 3.3	3 – 40	1.5%
Also for control apply 11 to 22 fluid ounces of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre			
<b>Dogbane, hemp</b>	3	3 – 40	1.5%
Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to re-grow to a mature stage prior to application of this product. For best results, apply in late summer or fall. For suppression, apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre using ground application equipment, and in 3 to 5 gallons of water per acre using aerial application equipment. Delay application until maximum emergence of dogbane has occurred.			
<b>Fescue (except tall)<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Fescue, tall</b>	0.7 – 2	3 – 40	1.5%
Apply 64 fluid ounces of this product per acre when most plants have reached boot to early seed head stage of development. For fall application, apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre when plants have 6 to 12 inches of new growth. A sequential application of 11 fluid ounces of this product per acre will improve long-term control and will control seedlings germinating after fall application or in the following spring.			
<b>Guineagrass</b>	1.5 – 2	3 – 40	1%
Apply when most 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 44 fluid ounces of this product per acre for control. In the flatwoods region of Florida, 64 fluid ounces per acre is required for control.			
<b>Horsenettle<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Horseradish</b>	3	3 – 40	1.5%
Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.			
<b>Iceplant<sup>1</sup></b>	–	–	1.5 – 2%
Thorough coverage is necessary for best control.			
<b>Jerusalem artichoke<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Johnsongrass</b>	0.4 – 2	3 – 40	1%
In annual cropping systems, apply 22 to 44 fluid ounces of this product in 3 to 10 gallons of water per acre. Use 44 fluid ounces of this product when applying 10 to 40 gallons of water per acre. In non-crop areas or areas where annual tillage is not practiced (no till), apply 44 to 64 fluid ounces of this product in 10 to 40 gallons of water per acre. For best results, apply when most plants have reached the boot to head stage of development or in the fall prior to frost. Allow a minimum of 7 days after application before tillage. Do not tank mix with residual herbicides when applying 22 fluid ounces of this product per acre.			

II MAIN LABEL FOR FOOD CROP USES

<b>Weed Species</b>	<b>Broadcast Rate (quarts/acre)</b>	<b>Water Volume (gallons/acre)</b>	<b>Handheld Sprayer Concentration (% Solution)</b>
<p>For burndown of johnsongrass apply 11 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</p> <p>For partial control or suppression apply a 0.7 percent solution of this product as a spot treatment when johnsongrass is 12 to 18 inches tall. Ensure that coverage is uniform and complete</p>			
<b>Kikuyugrass</b>	1.5 – 2	3 – 40	1.5%
<p>Apply when most kikuyugrass is at least 8 inches tall (3- or 4 leaf stage of growth). Allow a minimum of 3 days after application before tillage</p>			
<b>Knapweed</b>	3	3 – 40	1.5%
<p>Apply when most plants have reached the late bud to flower stage of growth. For best results apply in late summer or fall</p>			
<b>Lantana</b>	–	–	1%
<p>Apply at or beyond the bloom stage of growth</p>			
<b>Lespedeza<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Milkweed, common</b>	2	3 – 40	1.5%
<p>Apply when most plants have reached the late bud to flower stage of growth</p>			
<b>Muhly, wirestem</b>	0.7 – 1.5	3 – 40	1.5%
<p>Apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre when wirestem muhly is 8 inches tall or more. Use 44 fluid ounces of this product when applying in 10 to 40 gallons of water per acre or in pasture, sod, or non-crop areas. 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</p>			
<b>Mullein, common<sup>1</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Napiergrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Nightshade, silverleaf</b>	1.5	3 – 10	1.5%
<p>For best results apply when at least 60 percent of the plants have berries. Fall application must be made before a killing frost</p>			
<b>Nutsedge, purple, yellow</b>	0.4 – 2	3 – 40	1.15%
<p>For control of nutsedge plants and immature nutlets apply 64 fluid ounces of this product per acre or a 1 to 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 require repeated applications for long-term control.</p> <p>Sequential applications of 22 to 44 fluid ounces of this product in 3 to 10 gallons of water per acre when a majority of the plants are in the 3 to 5-leaf stage (less than 6 inches tall) will also provide control. Repeat this application as necessary when newly emerging plants reach the 3 to 5 leaf stage. Subsequent applications will be necessary for long term control.</p> <p>For partial control of existing plants apply 11 to 44 fluid ounces of this product in 3 to 40 gallons of water per acre when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat this application as needed to control subsequent emerging plants or re-growth of existing plants</p>			
<b>Orchardgrass</b>	0.7 – 1.5	3 – 40	1.5%

## II MAIN LABEL FOR FOOD CROP USES

<b>Weed Species</b>	<b>Broadcast Rate</b> (quarts/acre)	<b>Water Volume</b> (gallons/acre)	<b>Handheld Sprayer Concentration</b> (% Solution)
<p>Apply 44 fluid ounces of this product in 10 to 40 gallons of water per acre when most plants have reached boot to early seed head stage of development For partial control in pasture or hay crop renovation apply 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre when plants are actively growing and most have reached 4 to 12 inches in height</p> <p>For orchardgrass sods going to no till corn apply 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre to orchardgrass that is a minimum of 12 inches tall for spring application and 6 inches tall for fall application Allow a minimum of 3 days after application before planting A sequential application of atrazine will be necessary for optimum results</p>			
<b>Pampasgrass</b>	-	-	1 - 1.5%
<p>Apply when pampasgrass is at or beyond the boot stage of growth Thorough coverage is necessary for best control</p>			
<b>Paragrass<sup>2</sup></b>	2 - 3.3	3 - 20	1.5%
<b>Phragmites</b>	2 - 3.3	10 - 40	1 - 1.5%
<p>For partial control and best 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</p>			
<b>Poison hemlock</b>	-	-	1 - 1.5%
<p>Apply using a handheld sprayer with a spray-to wet technique Optimum results are obtained when applied to plants that are at the bud to full bloom stage of growth Thorough coverage is necessary for best control</p>			
<b>Pokeweed, common</b>	1	3 - 40	1.5%
<p>Apply to actively growing plants up to 24 inches tall</p>			
<b>Quackgrass</b>	0.7 - 2	3 - 40	1.5%
<p>In annual cropping systems or in pastures and sods followed by deep tillage apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre or 44 fluid ounces in 10 to 40 gallons of water per acre when quackgrass is 6 to 8 inches in height Do not tank-mix with residual herbicides when using the 22-fluid-ounce rate Do not till between harvest and fall application or in the fall or spring prior to spring application Allow a minimum of 3 days after application before tillage In pastures or sods use a moldboard plow for best results</p> <p>In pastures sods or non crop areas where deep tillage does not follow application apply 44 to 64 fluid ounces of this product in 10 to 40 gallons of water per acre when quackgrass is greater than 8 inches tall</p>			
<b>Redvine</b>	0.5 - 1.5	5 - 10	1.5%
<p>For suppression make two applications of 16 fluid ounces of this product 7 to 14 days apart or a single application of 44 fluid ounces in 5 to 10 gallons of water per acre in late September or early October to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation Apply a minimum of 1 week before a killing frost</p>			
<b>Reed, giant</b>	-	-	1.5%

## II MAIN LABEL FOR FOOD CROP USES

<b>Weed Species</b>	<b>Broadcast Rate</b> (quarts/acre)	<b>Water Volume</b> (gallons/acre)	<b>Handheld Sprayer Concentration</b> (% Solution)
Best results are obtained when application is made in late summer or fall			
<b>Ryegrass, perennial</b>	0.7 – 2	3 – 40	1%
In annual cropping systems apply 22 to 44 fluid ounces of this product in 3 to 10 gallons of water per acre or 44 fluid ounces when applying in 10 to 40 gallons of water per acre. In non crop areas or areas where annual tillage is not practiced (no till) apply 44 to 64 fluid ounces of this product in 10 to 40 gallons of water per acre.			
For best results apply when most plants have reached the boot to head stage of growth or in the fall prior to frost. Do not tank-mix with residual herbicides when applying 22 fluid ounces of this product per acre.			
<b>Smartweed, swamp<sup>1</sup></b>	2 – 3.3	3 – 40	1.5%
Also for control apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in late summer or fall.			
<b>Sowthistle, perennial</b>	1.5 – 2	3 – 40	1.5%
Apply when most plants are at or beyond the bud stage of growth. After harvest mowing or tillage in late summer or fall allow a minimum of 4 weeks for initiation of active growth and rosette development prior to application of this product. Fall application must be made before a killing frost. Allow a minimum of 3 days after application before tillage.			
<b>Spurge, leafy</b>	–	3 – 10	1.5%
For suppression apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in late summer or fall. If mowing has occurred delay application until most plants are 12 inches tall.			
<b>Starthistle, yellow</b>	1.5	10 – 40	1.5%
Best results are obtained when application is made during the rosette, bolting or early flower stage.			
<b>Sweet potato, wild</b>	–	–	1.5%
For partial control apply to plants that are at or beyond the bloom stage of growth. More than one application might be needed.			
<b>Thistle, artichoke</b>	–	–	1.5%
For partial control apply when plants are at or beyond the bloom stage of growth. More than one application might be needed.			
<b>Thistle, Canada</b>	1.5 – 2	3 – 40	1.5%
Apply when most plants are at or beyond the bud stage of growth. After harvest mowing or tillage in late summer or fall allow a minimum of 4 weeks for initiation of active growth and rosette development prior to application of this product. Fall application must be made before a killing frost.			
For suppression in the spring apply 22 fluid ounces of this product alone or 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre when rosette is a minimum of 6 inches in diameter. Application may be made as long as leaves are still green and plants are actively growing.			
Allow a minimum of 3 days after application before tillage.			
<b>Timothy<sup>2</sup></b>	1.5 – 2	3 – 40	1.5%

## II MAIN LABEL FOR FOOD CROP USES

<b>Weed Species</b>	<b>Broadcast Rate</b> (quarts/acre)	<b>Water Volume</b> (gallons/acre)	<b>Handheld Sprayer Concentration</b> (% Solution)
<b>Torpedograss</b>	2.5 – 3.3	3 – 40	1.5%
For partial control apply when most plants are at or beyond the seed head stage of growth. More than one application will be required to achieve control. Fall application must be made before frost.			
<b>Trumpet creeper</b>	1.5	5 – 10	1.5%
For partial control apply in late September or October when trumpet creeper is a minimum of 18 inches tall and has been growing 45 to 60 days since the last tillage operation. Make application a minimum of 1 week before a killing frost.			
<b>Vaseygrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Velvetgrass<sup>2</sup></b>	2 – 3.3	3 – 20	1.5%
<b>Wheatgrass, western<sup>2</sup></b>	1.5 – 2	3 – 40	1.5%

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

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

**17.0 WOODY BRUSH AND TREES RATE SECTION**

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

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

Unless otherwise directed make broadcast applications in 3 to 40 gallons of water per acre. Ensure thorough coverage when using handheld sprayers. Symptoms might not appear prior to frost or senescence after a fall application.

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 colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance could result if fall application is made after a frost.

**WOODY BRUSH AND TREES RATE TABLE**

<b>Species</b>	<b>Broadcast Rate</b> (quarts/acre)	<b>Handheld Sprayer Concentration</b> (% Solution)
Alder	2 – 3	1%
Ash <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Aspen quaking	1.5 – 2	1%
Bearmat (Bearclover) <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Beech <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Birch	1.5 – 2	1%

II MAIN LABEL FOR FOOD CROP USES

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
Blackberry	2 – 3	1%
Apply after plants have reached full leaf maturity Best results are obtained when application is made in late summer or fall Apply a 0.7-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 to 2.5 quarts of this product in 10 to 40 gallons of water per acre		
Blackgum	1.5 – 3.3	1 – 1.5%
Bracken	1.5 – 3.3	1 – 1.5%
Broom French Scotch	–	1 – 1.5%
Buckwheat California <sup>1,2</sup>	–	1 – 1.5%
Cascara <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Catsclaw <sup>1</sup>	–	1%
Ceanothus <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Chamise <sup>2</sup>	–	1%
Cherry bitter black pin	1.5 – 2	1%
Coyote brush	–	1 – 1.5%
Apply when at least 50 percent of the new leaves are fully developed		
Dogwood <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Elderberry	1.5 – 2	1%
Elm <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Eucalyptus	–	1.5%
For control of eucalyptus re sprouts apply when re sprouts are 6 to 12 feet tall Ensure complete coverage Avoid application to drought stressed eucalyptus plants		
Florida holly (Brazilian Peppertree) <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Gorse <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Hasardia <sup>1,2</sup>	–	1 – 1.5%
Hawthorn	1.5 – 2	1%
Hazel	1.5 – 2	1%
Hickory <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Honeysuckle	2 – 3	1%
Hornbeam American <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Kudzu	2.5 – 3.3	1.5%
More than one application might be needed to achieve control		
Locust black <sup>1</sup>	1.5 – 3	1 – 1.5%
Madrone re sprouts <sup>1</sup>	–	1.5%



## II MAIN LABEL FOR FOOD CROP USES

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
Apply to re sprouts that are 3 to 6 feet tall Best results are obtained with spring or early summer application		
Manzanita <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Maple red	1.5 – 3	1%
Apply a 1-percent solution when at least 50 percent of the new leaves are fully developed For partial control apply 44 to 86 fluid ounces of this product per acre		
Maple sugar	–	1%
Apply when at least 50 percent of the new leaves are fully developed		
Monkey flower <sup>1 2</sup>	–	1 – 1.5%
Oak black white <sup>1</sup>	1.5 – 3	1 – 1.5%
Oak post	2 – 3	1%
Oak northern	–	1%
Apply when at least 50 percent of the new pin leaves are fully developed		
Oak southern red	1.5 – 2	1%
Persimmon <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Pine	1.5 – 3.3	1 – 1.5%
Poison ivy/Poison oak	2.5 – 3.3	1.5%
More than one application might be required to achieve control Fall application must be made before leaves lose green color		
Poplar yellow <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Redbud eastern	1.5 – 3.3	1 – 1.5%
Rose multiflora	1.5	1%
Make application prior to leaf deterioration by leaf-eating insects		
Russian olive <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sage black <sup>2</sup>	–	1%
Sage white <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sagebrush California <sup>2</sup>	–	1%
Salmonberry	1.5 – 2	1%
Saltcedar	1.5 – 3.3	1 – 1.5%
Sassafras <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sourwood <sup>1</sup>	1.5 – 3.3	1 – 1.5%
Sumac poison smooth winged <sup>1</sup>	1.5 – 3	1 – 1.5%
Sweetgum	1.5 – 2	1%
Swordfern <sup>1</sup>	1.5 – 3.3	1 – 1.5%

## II MAIN LABEL FOR FOOD CROP USES

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
Tallowtree Chinese <sup>2</sup>	-	1%
Tan oak re-sprouts <sup>1</sup>	-	1.5%
Apply to re-sprouts that are less than 6 feet tall. Best results are obtained with fall application.		
Thimbleberry	1.5 - 2	1%
Tobacco tree <sup>1</sup>	-	1 - 1.5%
Trumpet creeper	1.5 - 2	1%
Vine maple <sup>1</sup>	1.5 - 3.3	1 - 1.5%
Virginia creeper	1.5 - 3.3	1 - 1.5%
Waxmyrtle southern <sup>1</sup>	1.5 - 3.3	1 - 1.5%
Willow	2 - 3	1%

<sup>1</sup> Partial Control

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

#### 18.0 LIMIT OF WARRANTY AND LIABILITY

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

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

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

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

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

## II MAIN LABEL FOR FOOD CROP USES

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 CROPSHIELD Degree Degree Xtra Harness INTRRO Lariat Micro Tech Monsanto and Vine symbol Roundup Original Roundup PowerMAX Roundup Ready Roundup Ready 2 Yield Roundup UltraMAX Transorb and YUKON are trademarks of Monsanto Technology LLC [*This listing will be updated at the time of printing if necessary*]

All other trademarks are the property of their respective owners

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This product is protected by U S Patent No s 5 668 085 RE 37 866 and 6 365 551 Other patents pending No license granted under any non U S patent(s) [*This listing will be updated at the time of printing if necessary*]

EPA Reg No 524 549

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

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© [YEAR]

Packed for

MONSANTO COMPANY  
800 N LINDBERGH BLVD  
ST LOUIS MISSOURI 63167 USA

<b>III MAIN LABEL FOR INDUSTRIAL, TURF AND ORNAMENTAL USES</b>
--

**[INSERT BRAND NAME]**

Herbicide

The complete broad spectrum postemergence herbicide for industrial turf and ornamental weed control

**Complete Directions for Use**

EPA Reg No 524-549

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

Read the entire label before using this product

Use only according to label instructions

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

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

THIS IS AN END USE PRODUCT MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS

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**1 0 INGREDIENTS**

ACTIVE INGREDIENT

\*Glyphosate N-(phosphonomethyl)glycine in the form of its potassium salt 48 7%

OTHER INGREDIENTS 51 3%

100 0%

\*Contains 660 grams of the active ingredient glyphosate in the form of its potassium salt per liter or 5 5 pounds per U S gallon which is equivalent to 540 grams of the acid glyphosate per liter or 4 5 pounds per U S gallon (39 8% by weight)

This product is protected by U S Patent No s 5 668 085 RE 37 866 and 6 365 551 Other patents pending No license granted under any non-U S patent(s) [This listing will be updated at the time of printing if necessary]

**2 0 IMPORTANT PHONE NUMBERS**

FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT CALL TOLL FREE

1-800 332-3111

## III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT OR FOR MEDICAL ASSISTANCE CALL  
COLLECT DAY OR NIGHT

(314) 694-4000

**3 0 PRECAUTIONARY STATEMENTS****3 1 Hazards to Humans and Domestic Animals**

Keep out of reach of children

**CAUTION!**

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes skin or clothing

<b>FIRST AID</b> Call a poison control center or doctor for treatment advice	
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye</li> </ul>
<b>IF ON SKIN</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes</li> </ul>
<ul style="list-style-type: none"> <li>• Have the product container or label with you when calling a poison control center or doctor or going for treatment</li> <li>• You can also call <b>(314) 694-4000</b> collect day or night for emergency medical treatment information</li> <li>• This product is identified as <b>[INSERT BRAND NAME] EPA Registration No 524 549</b></li> </ul>	

**DOMESTIC ANIMALS** This product is considered to be relatively nontoxic to dogs and other domestic animals however ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting diarrhea colic etc) If such symptoms are observed provide the animal with plenty of fluids to prevent dehydration Call a veterinarian if symptoms persist for more than 24 hours

**Personal Protective Equipment (PPE)**

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

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

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

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

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

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

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

When handlers use closed systems enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170 240 (d) (4 6)] the handler PPE requirements may be reduced or modified as specified in the WPS

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

**User Safety Recommendations**

Users should

- Wash hands before eating drinking chewing gum using tobacco or using the toilet
- 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 only stainless steel fiberglass plastic or plastic lined steel containers

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

### III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

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 pesticides away from food pet food feed seed fertilizers and veterinary supplies Keep container closed to prevent spills and contamination

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

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

**CONTAINER HANDLING AND DISPOSAL** *[Optional label text if needed See container label for container handling and disposal instructions and refilling limitations ]*



## III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

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

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

Nonrefillable container Do not reuse or refill this container

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

Triple rinse the container promptly after emptying

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

Then offer the container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill [*Alternate container disposal statement* Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [*Optional container disposal statement* To find the nearest site contact your chemical dealer or Monsanto Company at 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 CONTAINERS 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 the container Contact your state regulatory agency to determine allowable practices in your state

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

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

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

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [*Optional container disposal statement* To find the nearest site contact

III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

your chemical dealer or Monsanto Company at 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 [Alternate container disposal statement Then offer the container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill ]

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

Nonrefillable container Do not reuse or refill this container

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

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

Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ full with water Replace and tighten closures Tip container on its side and roll it back and forth ensuring at least one revolution for 30 seconds Stand the container on its end and tip it back and forth several times Turn the container over onto its other end and tip it back and forth several times Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal Repeat this procedure two more times

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [Optional container disposal statement To find the nearest site contact your chemical dealer or Monsanto Company at 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 [Alternate container disposal statement Then offer the container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill ]

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

[CONTAINER HANDLING AND DISPOSAL STATEMENT FOR THE SMARTPAK – A NONREFILLABLE COMPOSITE PACKAGING (CARDBOARD OUTER PACKAGING WITH PLASTIC INNER CONTAINER)]

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 a mix tank and drain for 10 seconds after the flow begins to drip Fill the container ¼ full with water and recap Shake for 10

## III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

seconds Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times

Pressure rinse as follows Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal Insert pressure rinsing nozzle through the bottom of the container ensuring that you puncture the inner plastic bottle and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip

Once properly rinsed open the outer cardboard container and remove the inner plastic container Some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling [Optional container disposal statement To find the nearest site contact your chemical dealer or Monsanto Company at 1-800 ROUNDUP (1 800 768 6387)] Recycle the cardboard separately 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 and inner plastic container in a sanitary landfill [Alternate container disposal statement Then offer the outer cardboard and inner plastic container for recycling if available If recycling is not available dispose of in accordance with federal state and local regulations and procedures which may include puncturing the properly rinsed inner plastic container and disposing both the outer cardboard and inner plastic container in a sanitary landfill ]

[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 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 a mix tank Fill the container about 10 percent full with water Agitate vigorously or recirculate water with the pump for 2 minutes Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times Then offer the container for recycling if available

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

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

[CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156 3]

**THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY**

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

**5 0 PRODUCT INFORMATION**

III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

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

**Time to Symptoms** This product moves through the plant from the point of foliage contact to and into the root system Visible effects are a gradual wilting and yellowing of the plant that advances to complete browning of aboveground growth and deterioration of underground plant parts Effects are visible on most annual weeds within 2 to 4 days but on most perennial weeds effects might not be visible for 7 or more days after application Extremely cool or cloudy weather following application could slow activity of this product and delay development of visual symptoms

**Stage of Weeds** Annual weeds are easiest to control when they are small Best control of most perennial weeds is obtained when this product is applied at late growth stages approaching maturity

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

**Cultural Considerations** Reduced weed control could result when application is made to annual or perennial weeds that have been mowed grazed or cut and have not been allowed to re grow to the specified stage prior to application

**Rainfastness** Heavy rainfall soon after application could wash this product off of the foliage and a repeat application might then be required to obtain adequate weed control

**No Soil Activity** Weeds must be emerged at the time of application to be controlled by this product Weed seeds in the soil will not be affected by this product and will continue to germinate Plants arising from unattached underground rhizomes or rootstocks of perennials that have not yet emerged at the time of application will not be affected by this product and will continue to grow

**Maximum Application Rates** The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre However the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate whether applied separately or 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

The combined total of all applications of this product on a site must not exceed 7 quarts (8 pounds of glyphosate acid) per acre per year

**ATTENTION**

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE STEMS EXPOSED NON WOODY ROOTS OR FRUIT OF CROPS DESIRABLE PLANTS AND TREES AS SEVERE INJURY OR DESTRUCTION COULD RESULT

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

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

The likelihood of injury occurring from the use of this product increases when winds are gusty as wind velocity increases when wind direction is constantly changing or when there are other meteorological

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conditions that favor spray drift When spraying avoid combinations of system pressure and nozzle type that will result in splatter or fine particles (mist) that are more likely to drift

AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE

**NOTE** Use of this product in any manner not consistent with this label could result in injury to persons animals or 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 mode of action classification system of the Weed Science Society of America Any weed population can contain plants naturally resistant to Group 9 herbicides Weed species resistant to Group 9 herbicides can be effectively managed by another herbicide from a different Group or by using other cultural or mechanical methods

**6 1 Weed Management Practices**

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

- Scout your application site before and after herbicide application
- Control weeds early when they are relatively small
- Incorporate other herbicides and cultural or mechanical practices into your weed management program where appropriate
- Use the application rate for the most difficult to control weed on the site Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism) or with ones that encourage application rates of this product below those specified on this label
- Control weed escapes and prevent weeds from setting seeds
- Clean equipment before moving from site to site to minimize spread of weed seed
- Use new commercial seed as free of weed seed as possible
- Report any incidence of repeated non performance of this product on a particular weed to your Monsanto representative local retailer or county extension agent

**6 2 Management of Glyphosate-Resistant Weed Biotypes**

Appropriate testing is needed to determine if a weed is resistant to glyphosate Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area or visit on the Internet at [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com) or [www.weedscience.org](http://www.weedscience.org)

Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation Monsanto Company is not responsible for any losses that result from the failure of this product to control glyphosate resistant weed biotypes

The following good weed management practices can reduce the spread of confirmed glyphosate resistant biotypes

- If a naturally occurring resistant biotype is present at your site apply this product in a tank-mix or sequentially with an appropriately labeled herbicide with a different mode of action to achieve control
- Cultural and mechanical control practices can also be used as appropriate

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- Scout sites after herbicide application and control escapes including resistant biotypes before they set seed
- Thoroughly clean equipment before leaving sites known to contain resistant biotypes

**7 0 MIXING**

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

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 sufficient

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

**7 1 Mixing with Water**

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

This product mixes readily with water Mix spray solutions of this product as follows Begin filling the mixing tank or spray tank with clean water Add the required amount of this product near the end of the filling process and mix gently 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 use an anti foam or defoaming agent

**7 2 Tank Mixtures**

This product does not provide residual weed control This product may be tank mixed with other herbicides to provide residual weed control a broader weed control spectrum or an alternate mode of action Always read and follow label directions for all products in the tank mixture

When a tank mix with a generic active ingredient such as 2 4 D atrazine dicamba diuron or pendimethalin is listed on this label the user is responsible for ensuring that the specific application being made and the use site is included on the label of the product 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 and soil restrictions Use according to the most restrictive precautionary statements for each product in the tank mixture

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

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 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

**7 3 Tank-Mixing Procedure**

III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

Add individual tank-mix components to the tank as follows wettable powders flowables emulsifiable concentrates drift reduction additives water soluble liquids (this product) surfactants

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

Keep by-pass line on or near the bottom of the tank to minimize foaming

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

Ensure that the specific tank-mix product is labeled for application at the desired site

**7 4 Mixing for Handheld Sprayers**

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

**Spray Solution**

Desired Volume	Amount of [INSERT BRAND NAME]					
	0 4%	0 7%	1%	1 5%	4%	7%
1 gal	0 5 oz	1 oz	1 3 oz	2 oz	5 oz	9 oz
25 gal	0 8 pt	0 7 qt	1 qt	1 5 qt	4 qt	7 qt
100 gal	1 6 qt	2 8 qt	1 gal	1 5 gal	4 gal	7 gal

2 tablespoons = 1 fluid ounce

For backpack knapsack 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 5 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 especially at lower application rates or when working with more dilute spray solutions Use colorants and dyes according to the manufacturer s directions

**8 0 APPLICATION EQUIPMENT AND TECHNIQUES**

Do not apply this product through any type of irrigation system

APPLY SPRAY SOLUTIONS OF THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES

**8 1 Aerial Application Equipment**

DO NOT APPLY SOLUTIONS OF 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 CALIFORNIA OR SPECIFIC COUNTIES THEREIN REFER TO THE LIMITATIONS FOR AERIAL APPLICATION IN THAT STATE OR COUNTY PRESENTED IN THIS SECTION

AVOID DRIFT DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT DRIFT CAN CAUSE DAMAGE TO ANY VEGETATION TO WHICH APPLICATION IS NOT INTENDED TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION APPROPRIATE BUFFER ZONES MUST BE MAINTAINED

III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

Avoid direct application to any body of water

Apply this product at the appropriate rate as described on this label in 3 to 25 gallons of water per acre unless otherwise specified on this label or on separate supplemental labeling or Fact Sheets published for this product

Coarse sprays are less likely to drift therefore do not use nozzles or nozzle configurations that dispense spray solutions of this product as fine droplets Do not angle nozzles forward into the air stream Do not attempt to increase flow rate by increasing nozzle pressure

Drift control additives may be used Read and follow the directions for use and all precautionary statements on the additive label

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

**Aircraft Maintenance** – Thoroughly wash aircraft especially landing gear after each day of spraying to remove residues of this product accumulated during spraying or from spills PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES COULD RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART LANDING GEAR IS MOST SUSCEPTIBLE Maintaining an organic coating (paint) that meets aerospace specification MIL C 38413 can help prevent corrosion

**SPRAY DRIFT MANAGEMENT**

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

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

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

**AERIAL SPRAY DRIFT MANAGEMENT**

The following drift management requirements must be followed to avoid off target drift movement from aerial application

- 1 The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor
- 2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees Where states have more stringent regulations they must be 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 (see the Wind Temperature and Humidity and Temperature Inversion sections of this label)

**Controlling Droplet Size**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume Nozzles with the higher rated flows produce larger droplets



### III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

- **Pressure** Use the lower spray pressures listed for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** Use the minimum number of nozzles that 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, 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 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 applications in low relative humidity, set application equipment up to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### Temperature Inversions

Do not apply during a temperature inversion because drift potential is high 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

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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**

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**LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY,  
INCLUDING FRESNO COUNTY, CALIFORNIA**

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Unless otherwise prohibited, all applications listed on the product label may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label. Refer to the individual use site section of this label or to other supplemental labeling or technical Fact Sheets published separately for this product for specific use instructions.

**AVOID DRIFT – DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT CAN CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH APPLICATION WAS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.**

Use the following guidelines when making an aerial application near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops:

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

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label.

When tank mixing this product with 2,4-D, only 2,4-D amine formulations may be used for aerial application in California. Tank mixtures with 2,4-D amine formulations may be applied by air in California for fallow and reduced tillage systems and for alfalfa and pasture renovation applications only.

This product, when tank mixed with dicamba, may not be applied by air in California.

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**ADDITIONAL LIMITATIONS FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY**

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The following information applies only from February 15 through March 31 within the following boundaries of Fresno County, California:

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

### III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

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

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

#### **Written 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.

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

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

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#### **8.2 Ground Application Equipment**

Apply this product at the appropriate rate in 3 to 40 gallons of water per acre when making a broadcast application using ground application equipment unless otherwise 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 towards the upper end of this range to ensure complete coverage. Use nozzles that will avoid generating a fine mist. For best results with ground application equipment, use flat fan nozzles. Check spray pattern for uniform distribution of spray droplets.

#### **8.3 Handheld and Backpack Sprayers**

Apply spray solutions of this product uniformly and completely to foliage of vegetation to be controlled using a coarse droplet spectrum and a spray to wet technique. Do not spray to the point of runoff.

For low-volume directed spray applications, ensure that at least 50 percent of the foliage or the top one-half of the plant is sprayed. To ensure uniform and complete coverage, spray both sides of large or tall woody brush and trees or when foliage is thick and dense or where there are multiple sprouts.

#### **8.4 Selective Application Equipment**

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

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AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION AS SERIOUS PLANT INJURY OR DEATH COULD OCCUR

**Shielded and Hooded Sprayers**

A shielded sprayer directs the herbicide solution to the target weeds while protecting desirable vegetation from being contacted by the herbicide spray with an impervious material or shield. A hooded sprayer is a type of shielded sprayer where the spray pattern is fully enclosed including the top, sides, front and back thereby shielding desirable vegetation from the spray solution. Use nozzles that provide uniform coverage within the application area. Keep shields on these sprayers properly adjusted to protect desirable vegetation.

USE EXTREME CARE TO AVOID CONTACT OF SPRAY SOLUTIONS OF THIS PRODUCT WITH DESIRABLE VEGETATION

**Wiper Applicator**

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

Adjust the height of the wiper applicator to ensure adequate contact with weeds and so that the wiper contact point is at least 2 inches above the desirable vegetation. Better results can be obtained when more of the weed is exposed to the herbicide solution and weeds are a minimum of 6 inches above the desirable vegetation. Weeds 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 re-saturation of the wiper with the herbicide solution. Better results with a wiper applicator can be obtained when two applications are made in opposite directions.

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

Do not apply this product with a wiper applicator when weeds are wet.

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

**For Rope and Sponge Wick Applicators**—use solutions ranging from 25 to 70 percent of this product in water.

**For Porous Plastic Applicators and Pressure-Feed Systems**—use solutions ranging from 25 to 100 percent (undiluted) of this product in water.

When applied as directed, this product CONTROLS the following weeds:

Corn volunteer	Rye common	Sicklepod	Starbur bristly
Panicum Texas	Shattercane	Spanishneedles	

When applied as directed, this product SUPPRESSES the following weeds:

Beggarweed Florida	Johnsongrass	Ragweed common	Thistle Canada
Bermudagrass	Milkweed	Ragweed giant	Thistle musk

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Dogbane hemp	Nightshade silverleaf	Smutgrass	Vaseygrass
Dogfennel	Pigweed redroot	Sunflower	Velvetleaf
Guineagrass			

**8 5 Injection Systems**

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

**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 amount specified on this label for application using conventional broadcast application equipment. Apply the appropriate amount of this product in 2 to 15 gallons of water per acre when using a vehicle mounted CDA.

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 INDUSTRIAL TURF AND ORNAMENTAL SITES AND USES**

This product may be used for weed control on industrial turf and ornamental sites including airports, apartment complexes, commercial sites, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms, and pumping installations, public areas, railroads, rangeland, recreation areas, residential areas, rights of way, roadsides, schools, shadehouses, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.

This product may also be used on non food crop sites such as Christmas tree farms, plant nurseries, and sod or turf seed farms.

Unless otherwise directed, application of this product may be made according to the directions for use in the sections that follow to any of these sites using any application equipment described on this label to control any weeds listed in the WEEDS CONTROLLED section of this label. [Alternate 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 application equipment described on this label to control any weeds listed in the ANNUAL WEEDS RATE SECTION, PERENNIAL WEEDS RATE SECTION, and WOODY BRUSH AND TREES RATE SECTION of this label.]

**9 1 Spot Treatment Trim and Edge Bare Ground Preparation**

This product may be used on any industrial turf and ornamental site listed on this label for spot treatment of unwanted vegetation for trim and edge application around objects and for eliminating vegetation from a site prior to beginning construction projects or the laying of asphalt or other road material. This product may be used prior to planting an area to ornamentals, flowers, or turfgrass (sod or seed) and to eliminate unwanted weeds growing in established shrub and ornamental beds. Application of this product may be repeated as needed to maintain bare ground as weeds continue to emerge.

**TANK MIXTURES** This product may be tank mixed with the following products to control emerged annual weeds and for control or partial control of emerged perennial weeds, woody brush and trees for the uses described in this section, provided that the product used is labeled for application at the intended use site. Refer to the individual product labels for approved sites and application rates.

Arsenal	Garlon 3A	Oust XP	Sahara
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atrazine	Garlon 4	Outrider	simazine
Barricade 65WG	Goal 2XL	pendimethalin	Surflan WDG
Certainty	Karmex DF	Pendulum WDG	Surflan AS
Crossbow L	Krovar I DF	Pendulum 3 3 EC	Telar
dicamba	Landmark MP	Plateau	Transline
diuron	Landmark II MP	Poast	Velpar DF
Endurance	Landmark XP	Princep DF	Velpar L
Escort	Milestone	Princep 4L	Vanquish
Escort XP	Oust	Ronstar 50WP	2 4 D
Gallery 75DF			

For control or partial control of the following perennial weeds apply 22 to 44 fluid ounces of this product plus 2 to 4 ounces of Oust XP herbicide per acre

Bahiagrass	Dallisgrass	Fescue tall	Quackgrass
Bermudagrass	Dock curly	Johnsongrass	Vaseygrass
Broomsedge	Dogfennel	Poorjoe	Vervain blue

**9 2 Cut Stump Application**

This product may be used to control re growth and re sprouting of woody brush and trees on any industrial turf and ornamental site listed on this label 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 best 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 product and method of application are

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

DO NOT MAKE A CUT STUMP APPLICATION WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MIGHT BE GRAFTED TO THE ROOTS OF THE CUT STUMP 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 a common root system

**9 3 Forest Management**

This product may be used for weed control including the control or partial control of woody brush trees and herbaceous weeds listed on this label for preparing or establishing wildlife openings maintaining roads and preparing sites prior to the planting of any tree species including Christmas trees eucalyptus trees and hybrid tree cultivars in a forestry setting and for establishing silvicultural nursery sites

Apply spray solutions of this product to the foliage of actively growing annual herbaceous weeds any time after emergence For best results apply after full leaf expansion and before fall color and leaf drop Refer to the Weeds Controlled section [*Alternate text* Refer to the Annual Weeds Rate Section Perennial Weeds Rate Section and Woody Brush and Trees Rate Section ] of this label for application rates and use directions for the control of specific weeds Use the higher application rate within the given range for control or partial control of woody brush trees and hard to control perennial herbaceous weeds listed on this label and when applying before seed heads flowers or berries appear Use the lower application rate within the given range if applying when seed heads flowers or berries are present

III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

TANK MIXTURES This product may be applied in a tank mixture with other products 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 forest management provided that the product used is labeled for these uses in forests Refer to the individual product label for approved uses and application rates

Arsenal Applicators Concentrate	Escort XP	Landmark XP	Oust XP
Chopper	Garlon 3A	Oust	Westar
Escort	Garlon 4A		

Read and carefully observe the label claims precautionary statements and all other information on the label of all products used Use according to the most restrictive precautionary statements for each product in the mixture

[Optional label text Do not apply this product as an over the top broadcast spray for forestry conifer or hardwood release unless otherwise directed on this label or on separate supplemental labeling for this product ]

[Alternative label text

**Broadcast Application Over Christmas Trees**

**IF IMPROPERLY APPLIED THIS PRODUCT HAS THE POTENTIAL TO CAUSE SEVERE CHRISTMAS TREE INJURY FOLLOW ALL LABEL DIRECTIONS CAREFULLY**

USE INSTRUCTIONS This product may be applied as a broadcast spray over the following established Christmas tree species that have completed at least one full growing season after planting or transplanting

- Douglas fir (*Pseudotsuga menziesii*)
- Fir species (*Abies* spp )
- Spruce species (*Picea* spp )

Apply 22 fluid ounces of this product per acre in 5 to 30 gallons of water per acre ONLY in the fall and ONLY after formation of final conifer resting buds FINAL RESTING BUDS MUST BE FULLY HARDENED AND IN THE DORMANT STAGE BEFORE APPLYING THIS PRODUCT Application made at any other time could result in unacceptable Christmas tree injury

This product may be applied over the top of Christmas trees at rates of up to 44 fluid ounces per acre in some areas Consult your local Monsanto Company representative or [INSERT BRAND NAME] supplier for specific directions for use if you require rates greater than 22 fluid ounces per acre

PRECAUTIONS Ensure that adequate buffers are maintained to prevent drift of this product onto nearby desirable crops or vegetation Avoid spray pattern overlap as Christmas tree injury could occur Read the entire APPLICATION EQUIPMENT AND TECHNIQUES section of this label for additional application precautions

RESTRICTIONS Do not apply this product within one full year prior to tree harvest

DO NOT ADD SURFACTANTS ADDITIVES CONTAINING SURFACTANTS OR ANY OTHER ADDITIVES INCLUDING DRIFT CONTROL ADDITIVES TO SPRAY SOLUTIONS OF THIS PRODUCT AS SEVERE CHRISTMAS TREE INJURY COULD RESULT

Do not tank mix this product with any other herbicide insecticide or fungicide as severe Christmas tree injury could result ]

**9 4 Turf Management**

The uses of this product described in this section for turf management may be applied to turfgrass growing on any industrial turf or ornamental 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

### III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

#### Chemical Mowing

This product may be used to suppress growth of perennial and annual grasses listed in this section to serve as a substitute for mowing

Perennial Grasses – apply 4 fluid ounces of this product to suppress growth of Kentucky bluegrass or 5 fluid ounces to suppress growth of tall fescue fine fescue orchardgrass quackgrass and reed canarygrass in 10 to 40 gallons of spray solution per acre Use only in areas where some temporary injury or discoloration of these perennial grasses can be tolerated

Annual Grasses – apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre to suppress growth of annual ryegrass wild barley and wild oats when actively growing in coarse turf on roadsides or other industrial areas and before seed heads are in the boot stage of development This application could injure the desired annual grasses

#### Dormant Bermudagrass and Bahiagrass

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass prior to spring green up in areas where these turfgrasses are desirable ground covers and some temporary injury or discoloration can be tolerated

Apply 5 to 44 fluid ounces of this product in 10 to 40 gallons of water per acre only when bermudagrass and bahiagrass are dormant and prior to spring green up For best control of winter annuals apply when plants are in an early growth stage (less than 6 inches tall) and after most have germinated For best control of tall fescue apply when tall fescue is at or beyond the 4 to 6 leaf stage

Application of more than 11 fluid ounces of this product per acre on highly maintained bermudagrass and bahiagrass turf such as on golf courses and lawns could result in turf injury or delayed green up

**TANK MIXTURES** For residual weed control this product may be tank mixed with Outrider® or Oust XP herbicides Apply 5 to 44 fluid ounces of this product in a tank mix with 0.75 to 1.33 ounces of Outrider® herbicide per acre or 0.25 to 1 ounce of Oust XP herbicide in 10 to 40 gallons of water per acre Tank mixtures of this product with Oust XP herbicide could delay green up in the spring To avoid delays in green up and minimize injury apply no more than 1 ounce of Oust XP herbicide per acre on bermudagrass and no more than 0.5 ounce per acre on bahiagrass and avoid application when these turfgrasses are in a semi dormant condition

**DO NOT** apply this product in a tank mixture with Oust XP herbicide on highly maintained bermudagrass and bahiagrass turf such as on golf courses and lawns

#### Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass 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 11 to 32 fluid ounces of this product in 10 to 40 gallons of spray solution per acre to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass Use a lower application rate within this range when controlling annual weeds less than 6 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 seed head formation At these application rates this product will provide partial control of the following perennial species in actively growing bermudagrass

Bahiagrass	Fescue tall	Trumpetcreeper	Vaseygrass
Bluestem silver	Johnsongrass		



### III MAIN LABEL FOR INDUSTRIAL TURF AND ORNAMENTAL USES

DO NOT apply more than 11 fluid ounces of this product per acre on highly maintained bermudagrass such as on golf courses and lawns

**TANK MIXTURES** For a broader weed control spectrum in actively growing bermudagrass this product may be tank mixed with Outrider® or Oust XP herbicides. Apply these tank mixtures only on well established bermudagrass where some temporary injury or discoloration can be tolerated

Apply 5 to 22 fluid ounces of this product per acre in a tank mix with 0.75 to 1.33 ounces of Outrider® herbicide for control or partial control of Johnsongrass and other weeds listed on the Outrider® herbicide label. Use the higher application rate of both products within the given ranges for control of annual or perennial weeds greater than 6 inches tall

Apply 11 to 22 fluid ounces of this product per acre in a tank mix with 1 to 2 ounces of Oust XP herbicide per acre for enhanced control of weeds listed on the Oust XP herbicide label. Use the lower application rate of each product within the given ranges to control annual weeds listed on the labels that are less than 6 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 seed head stage. This tank mix will provide partial control of the following perennial weeds in actively growing bermudagrass

Bahiagrass	Dallisgrass	Fescue tall	Trumpet creeper
Blackberry	Dewberry	Johnsongrass	Vaseygrass
Bluestem silver	Dock curly	Poorjoe	Vervain blue
Broomsedge	Dogfennel	Raspberry	

DO NOT apply this product in a tank mixture with Oust XP herbicide on highly maintained bermudagrass such as on golf courses and lawns

#### Actively Growing Bahiagrass

For suppression of vegetative growth and seed head 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 seed head emergence

For growth suppression of bahiagrass for up to 120 days apply 3 fluid ounces of this product per acre followed by an application of 1.5 to 3 fluid ounces per acre about 45 days later. Unless otherwise directed make no more than two growth suppression applications per year

**TANK MIXTURES** For a broader weed control spectrum in actively growing bahiagrass this product may be tank mixed with Outrider® or Oust XP herbicides. Apply these tank mixtures only on well established bahiagrass where some temporary injury or discoloration can be tolerated

Application of 4 fluid ounces of this product in a tank mix with 0.75 to 2.0 ounces of Outrider® herbicide per acre will control or partially control Johnsongrass and other weeds listed on the Outrider® herbicide label. Use the higher application rate within the given range for Outrider® herbicide to control annual and perennial weeds greater than 6 inches tall

Apply 4 fluid ounces of this product in a tank mix with 0.25 ounce of Oust XP herbicide per acre 1 to 2 weeks following an initial spring mowing for enhanced control of weeds listed on the Oust XP herbicide label in actively growing bahiagrass. Make this application only once per year

#### Turfgrass Renovation Seed and Sod Production

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation delay planting or sodding to determine if any re growth of underground plant parts will occur. Where repeat applications are necessary sufficient re growth must be attained prior to re application of this product. For warm season grasses such as bermudagrass summer or fall application provides the best control. Where existing vegetation is growing under mowed turfgrass management apply this product after omitting at least one regular mowing to

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allow sufficient growth for good interception of the spray solution. Desirable turfgrasses may be planted after application.

A handheld sprayer may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or handheld application equipment may be used to apply this product for control of 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 including vertical mowing, coring and slicing for a minimum of 7 days after application to allow translocation of this product into underground plant parts.

**RESTRICTIONS** If application rates total 2 quarts per acre or less, no waiting period between application and feeding or livestock grazing is required. If the application rate is more than 2 quarts per acre, remove livestock before application and wait a minimum of 8 weeks after application before grazing or harvesting.

#### 9.5 Habitat Management

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas including rangeland and wildlife refuges. Application may be made to allow recovery of native plant species or prior to planting desirable native species and for similar broad spectrum vegetation control. Spot treatment may be used to selectively remove unwanted plants for habitat management and enhancement.

#### Wildlife Food Plots

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 to allow translocation of this product into underground plant parts.

#### 9.6 Hollow Stem Injection

This product may be applied as directed in this section using a handheld injection device capable of delivering the proper amount of this product into targeted hollow stem plants growing on any site included on this label.

##### **Castorbean** *Ricinus communis*

Inject 4 milliliters of this product per plant into the lower portion of the main stem.

##### **Hemlock Poison** *Conium maculatum*

Inject one leaf cane per plant 10 to 12 inches above the root crown with 5 milliliters of a 5 percent (by volume) solution of this product.

##### **Hogweed Giant** *Heracleum mantegazzianum*

Inject one leaf cane per plant 12 inches above the root crown with 5 milliliters of a 5 percent (by volume) solution of this product.

##### **Horsetail Field** *Equisetum arvense*

Inject one segment above the root crown with 0.5 milliliter of this product per stem. Use a low volume syringe capable of accurately delivering this amount of product.

##### **Knotweed Bohemian** *Polygonum bohemicum*

Inject 5 milliliters of this product per stem between the second and third internode.

##### **Knotweed Giant** *Polygonum sachalinense*

Inject 5 milliliters of this product per stem between the second and third internode.

##### **Knotweed Japanese** *Polygonum cuspidatum*

Inject 5 milliliters of this product per stem between the second and third internode.

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#### **Reed Giant** *Arundo donax*

Inject 6 milliliters of this product per stem between the second and third internode

#### **Thistle Canada** *Cirsium arvense*

Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Push a cavity needle into the stem center and then slowly remove it as you inject 0.5 milliliter of this product into the stem.

**RESTRICTIONS** The combined total use of this product must not exceed 7 quarts per acre. At 5 milliliters per stem, 7 quarts will treat approximately 1300 stems per acre.

#### **9.7 Injection and Frill (Woody Brush and Trees)**

This product may be used to control woody brush and trees by injection or frill application on any site listed on this label. Inject or apply the equivalent of 1 milliliter (0.04 fluid ounces) 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. For frill application, apply a 50 to 100 percent (undiluted) solution of this product in water to either a continuous frill around the tree or to cuts evenly spaced around the tree below all branches. As tree diameter increases, better results are achieved by applying this product to a continuous frill or more closely spaced cuttings. In species that freely exude sap, make the frill or cuts at an oblique angle to produce a cupping effect and apply this concentrated product undiluted. For best results, apply during period of active growth and full leaf expansion. This product will control or partially control many species, some of which are listed below.

Control: Oak, Poplar, Sweetgum, Sycamore

Partial Control: Black gum, Dogwood, Hickory, Red maple

#### **9.8 Non Food Tree, Shrub, and Vine Production**

This product may be used for weed control prior to the planting of and around established ornamentals or any woody tree, shrub, or vine species, including arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce, and yew, growing in plant nurseries, on Christmas tree farms, or on other non food tree production sites.

This product may also be used to control weeds growing in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off until after the application has dried.

[Optional label text] UNLESS OTHERWISE DIRECTED, DO NOT APPLY THIS PRODUCT AS A BROADCAST SPRAY OVER THE TOP OF ORNAMENTALS AND CHRISTMAS TREES. Avoid contact of spray drift or mist of spray solutions of this product with foliage or green bark of desirable ornamental species.

#### **Site Preparation**

This product may be used prior to planting any tree, shrub, or vine, including Christmas tree species, in a nursery or production setting.

#### **Post Directed Trim and Edge**

This product may be used as a post directed spray around established woody ornamental species or to trim and edge around trees, buildings, sidewalks, roads, potted plants, and other objects in a production setting.

Desirable plants must be protected from the spray solution by using shields or coverings made of an impermeable material.

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#### **Wiper Applicator**

This product may be applied using a wiper applicator wick or other suitable applicator to control or partially control undesirable vegetation around established trees shrubs or vines See the Selective Application Equipment section of this label for more information on the proper use of wiper applicators

[This use is optional on the printed label]

#### **Broadcast Application Over Christmas Trees**

**IF IMPROPERLY APPLIED THIS PRODUCT HAS THE POTENTIAL TO CAUSE SEVERE CHRISTMAS TREE INJURY FOLLOW ALL LABEL DIRECTIONS CAREFULLY**

USE INSTRUCTIONS This product may be applied as a broadcast spray over the following established Christmas tree species that have completed at least one full growing season after planting or transplanting

- Douglas fir (*Pseudotsuga menziesii*)
- Fir species (*Abies* spp )
- Spruce species (*Picea* spp )

Apply 22 fluid ounces of this product per acre in 5 to 30 gallons of water per acre ONLY in the fall and ONLY after formation of final conifer resting buds FINAL RESTING BUDS MUST BE FULLY HARDENED AND IN THE DORMANT STAGE BEFORE APPLYING THIS PRODUCT Application made at any other time could result in unacceptable Christmas tree injury

This product may be applied over the top of Christmas trees at rates of up to 44 fluid ounces per acre in some areas Consult your local Monsanto Company representative or [INSERT BRAND NAME] supplier for specific directions for use if you require rates greater than 22 fluid ounces per acre

PRECAUTIONS Ensure that adequate buffers are maintained to prevent drift of this product onto nearby desirable crops or vegetation Avoid spray pattern overlap as Christmas tree injury could occur Read the entire APPLICATION EQUIPMENT AND TECHNIQUES section of this label for additional application precautions

DO NOT ADD SURFACTANTS ADDITIVES CONTAINING SURFACTANTS OR ANY OTHER ADDITIVES INCLUDING DRIFT CONTROL ADDITIVES TO SPRAY SOLUTIONS OF THIS PRODUCT AS SEVERE CHRISTMAS TREE INJURY COULD RESULT

Do not tank mix this product with any other herbicide insecticide or fungicide as severe Christmas tree injury could result

RESTRICTIONS Do not apply this product within one full year prior to tree harvest ]

#### **9 9 Parks Recreational and Residential Areas**

All industrial turf and ornamental applications of this product described on this label may be used in parks recreational and residential areas using any application equipment described on this label including for spot treatment of unwanted vegetation for trim and edge application around trees fences paths buildings sidewalks and other objects in these areas and for eliminating vegetation from a site prior to beginning construction projects or the laying of asphalt or other road material This product may also be used prior to planting an area to ornamentals flowers or turfgrass (sod or seed) for turf management and to eliminate unwanted weeds growing in established shrub and ornamental beds

#### **9 10 Railroad Management**

All industrial turf and ornamental applications of this product described on this label may be used on railroad sites

#### **Bare Ground Ballast and Shoulders Crossings Spot Treatment**

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This product may be used to maintain bare ground on railroad ballast and shoulders and to control tall weeds growing at railroad crossings to improve line of sight and reduce the need for mowing along railroad rights of way. Application of this product may be repeated as weeds continue to emerge in order to maintain bare ground. For railroad crossing applications, this product may be applied in up to 80 gallons of spray solution per acre.

**TANK MIXTURES** This product may be 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 on railroad sites provided that the product used is labeled for these applications. Refer to the individual product labels for approved uses and application rates.

Arsenal	Garlon 3A	Oust XP	Transline
atrazine	Garlon 4	Outrider	Vanquish
dicamba	Hyvar X	Sahara DG	Velpar DF
diuron	Hyvar X L	simazine	Velpar L
Escort	Krovar I DF	Spike 80DF	2 4 D
Escort XP	Oust	Telar DF	

**Brush Control**

This product may be used to control woody brush and trees on railroad rights of way. Apply 2.5 to 7 quarts of this product in up to 80 gallons of spray solution per acre as a broadcast spray using either a boom or boomless sprayer. Apply a 0.7 to 1.5 percent solution of this product when using high volume application equipment with a spray to wet technique or a 4 to 7 percent solution when using low volume directed sprays for spot treatment.

**TANK MIXTURES** This product may be applied in a tank mixture with the following products for enhanced control of woody brush and trees along railroad rights of way provided that the product used is labeled for use on these sites. Refer to the individual product labels for approved sites and application rates.

Arsenal	Garlon 3A	Oust XP	Transline
atrazine	Garlon 4	Outrider®	Vanquish
dicamba	Hyvar X	Sahara DG	Velpar DF
diuron	Hyvar X L	simazine	Velpar L
Escort	Krovar I DF	Spike 80DF	2 4 D
Escort XP	Oust	Telar DF	

**Bermudagrass Release**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass along railroad rights of way. See the Turf Management section of this label for directions for use of this product for weed control in dormant and actively growing bermudagrass. Application of this product may be made in up to 80 gallons of spray solution per acre along railroad rights of way.

**9 11 Roadside Management**

All industrial turf and ornamental applications of this product described on this label may be made on roadsides.

**Roadside Shoulder**

This product may be applied for weed control on roadside shoulders using boom sprayers, shielded boom sprayers, high volume sprayers with off center nozzles, handheld sprayers, and other similar equipment described on this label.

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**Guardrails and Other Obstacles to Mowing**

This product may be used to control weeds growing under and around guardrails signposts and other objects along the road

**Spot Treatment**

This product may be applied as a spot treatment to control unwanted vegetation growing along roadsides

**TANK MIXTURES** This product may be tank mixed with the following products for shoulder guardrail spot treatment and maintaining bare ground applications provided that the product used is labeled for use on these sites Refer to the individual product labels for approved uses and application rates

atrazine	Escort XP	Outrider®	Sahara
Clarity	Gallery 75 DF	Pendulum 3 3 EC	simazine
Crossbow L	Krovar I DF	Pendulum WDG	Surflan
dicamba	Landmark II MP	Plateau	Telar
diuron	Landmark MP	Princep DF	Vanquish
Endurance	Landmark XP	Princep 4L	2 4 D
Escort	Oust	Ronstar 50WP	

**Bermudagrass and Bahiagrass Release**

Dormant Bermudagrass and Bahiagrass – this product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass along roadsides prior to spring green up See the Turf Management section of this label for directions for use of this product in dormant bermudagrass and bahiagrass

Actively Growing Bermudagrass – this product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass along roadsides See the Turf Management section of this label for directions for use of this product in actively growing bermudagrass

Actively Growing Bahiagrass – this product may be used to suppress vegetative growth and inhibit seed head development of bahiagrass and to control or partially control many annual and perennial weeds for effective release of actively growing bahiagrass along roadsides See the Turf Management section of this label for directions for use of this product in actively growing bahiagrass

**9 12 Rangeland Management**

This product will control or suppress many annual weeds growing in perennial cool and warm season grass rangelands and pastures and on grassy industrial sites Preventing weed seed production is critical to the successful control of invasive annual grassy weeds on these perennial grass sites Yearly application of this product will help eliminate viable weed seeds Delay grazing of the land after application to allow desirable perennials to grow flower and re seed the area

**Bromus** A broadcast application of 5 to 11 fluid ounces of this product per acre will control or suppress downy brome (*Bromus tectorum*) Japanese brome (*Bromus japonicus*) soft chess (*Bromus mollis*) cheatgrass (*Bromus secalinus*) cereal rye and jointed goatgrass found on rangeland pastures and grassy industrial sites For best results plan application to coincide with early seed head emergence of the most mature plants in order to maximize the emergence of other weedy grasses Repeat this application annually until seed banks are depleted and the desirable perennial grasses become re established on the site

**Medusahead** To control or suppress medusahead apply 11 fluid ounces of this product in 10 to 20 gallons of water per acre using ground application equipment or in 2 to 10 gallons of water per acre using aerial application equipment either fixed wing or helicopter in the spring or fall when plants are at the 3 leaf stage and actively growing Delaying application beyond this stage will result in reduced or

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unacceptable control Repeat this application annually until seed banks are depleted and desirable perennial grasses become established

#### Spot Treatment Wiper Applicator

This product may be applied on rangeland pastures and industrial sites as a spot treatment or over the top of desirable grasses using a wiper applicator to control tall weeds Application may be repeated in the same area at 30 day intervals

**RESTRICTIONS** For spot treatment or use with a wiper applicator at application rates of 2 quarts of this product per acre or less application may be made to the entire site or any portion of it at rates above 2 quarts per acre application may be made to no more than 10 percent of the total site at any one time 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

#### 9 13 Utility Site 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 establish 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

**TANK MIXTURES** This product may be tank mixed with the following products for use on utility sites provided that the product used is labeled for use on these sites Refer to the individual product label for approved uses and application rates For control of herbaceous weeds use the lower application rates within the given ranges for these tank mix products and increase the rates toward the higher end of the ranges for control of dense stands or tough to control woody brush and trees

Arsenal	Escort XP	Outrider	Surflan WDG
atrazine	Garlon 3A	pendimethalin	Telar DF
Barricade 65WG	Garlon 4	Plateau	Transline
dicamba	Krenite	Ronstar 50WP	Vanquish
diuron	Krovar I DF	Sahara	Velpar DF
Endurance	Oust	simazine	Velpar L
Escort	Oust XP	Surflan AS	2 4 D

Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product to the spray mixture Maintain continuous agitation when adding this product in order to avoid product incompatibility problems

For best results with side trimming apply this product in a tank mixture with Garlon 4

#### 9 14 Grass Seed and Sod Production

This product may be used in grass seed and sod production for preplant at planting preemergence removal of established stands renovation site preparation shielded sprayer wiper applicator and spot treatment weed control and for creating rows in annual ryegrass applications

#### Preplant At Planting Preemergence Removal of Established Stands Renovation Site Preparation

This product will eliminate most existing vegetation for purposes of renovating turf or forage grass seed areas and for establishing turfgrass grown for sod It may also be used to destroy remaining undesired grass vegetation when production fields are converted to an alternate species or crop Make application

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before during or after planting or for renovation purposes Application must be made prior to crop emergence in order to avoid crop injury For maximum control of existing vegetation delay planting to determine if any re growth from underground plant parts will occur Where existing vegetation is growing under mowed turfgrass management apply this product after omitting at least one regular mowing to allow sufficient turf growth for good interception of the herbicide spray Where an application must be repeated sufficient re growth must be attained prior to re application For warm season grasses such as bermudagrass summer or fall application provides best control Broadcast application equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested Application rates up to 3 3 quarts per acre may be used to totally remove established stands of tough to kill grass species

Do not disturb soil or underground plant parts before application and delay tillage or renovation techniques such as vertical mowing coring and slicing for a minimum of 7 days after application to allow translocation of this product into underground plant parts

**RESTRICTIONS** If application rates total 2 quarts per acre or less no waiting period between application and feeding or livestock grazing is required If the application rate is more than 2 quarts per acre remove domestic livestock before application and wait a minimum of 8 weeks after application before grazing or harvesting

#### **Shielded Sprayer**

Apply 22 to 64 fluid ounces of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows Uniform planting in straight rows will aid this shielded sprayer application Best results are obtained when the grass seed plants are small enough to easily pass by the protective shields of the sprayer

Any contact of this product with desirable vegetation could result in discoloration stunting or destruction Such damage shall be the sole responsibility of the applicator

#### **Wiper Applicator**

This product may be applied over the top of desirable grasses using a wiper applicator for the control of tall weeds

Any contact of this product with desirable vegetation could result in discoloration stunting or destruction Such damage shall be the sole responsibility of the applicator

#### **Spot Treatment**

Apply a 1 percent solution of this product using a handheld sprayer to control weeds within established vegetation prior to heading of grasses grown for seed Handheld equipment may also be used to control sod remnants or other unwanted vegetation after sod is harvested

Grass 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 grass injury or destruction

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

Apply 11 to 22 fluid ounces of this product per acre to create rows in annual ryegrass Best results are obtained when application is made before ryegrass reaches 6 inches in height Apply a higher rate within this range when ryegrass is more than 6 inches tall

Set nozzle height to establish desired row spacing Low pressure nozzles or drop nozzles designed to target the application over a narrow band provide best results

Take care not to spray or allow spray to drift outside target area in order to avoid unwanted grass destruction



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**To the extent consistent with applicable law grower assumes all responsibility for crop losses resulting from misapplication of this product**

#### **9 15 Pasture Management**

This product may be applied as a spot treatment or using a wiper applicator or as a broadcast preplant preemergence pasture renovation or postemergence application to any pasture grass (other than food crops in the *Gramineae* family) including bahiagrass bermudagrass bluegrass brome fescue guineagrass kikuyugrass orchardgrass pangola grass ryegrass timothy and wheatgrass

#### **Preplant Preemergence Pasture Renovation**

This product may be applied for weed control prior to planting or the emergence of forage grasses or for control of perennial pasture species listed on this label prior to re planting

**RESTRICTIONS** If the total application rate of this product is 2 quarts per acre or less no waiting period between application and feeding or livestock grazing is required If the rate is greater than 2 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 tall weeds Application may be repeated in the same area at 30 day intervals

**RESTRICTIONS** For spot treatment or use with a wiper applicator at an application rate of 2 quarts of this product per acre or less application may be made over the entire pasture or any portion of it at rates greater than 2 quarts per acre application may be made over no more than 10 percent of the total pasture at any one time 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

#### **Selective Weed Control in Dormant Pastures**

This product may be applied to dormant pastures to suppress competitive growth and seed production of annual weeds and undesirable vegetation For selective weed control using broadcast application equipment apply 8 to 11 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth or in late fall after desirable perennial grasses have reached dormancy

**PRECAUTIONS** Some stunting of perennial grasses will occur if this application is made when plants are not dormant Higher application rates could cause stand reduction

**RESTRICTIONS** No waiting period between application and grazing or harvesting for feed is required Do not apply more than 2 quarts of this product per acre per year onto pasture grasses except for renovation use as described on this label

#### **10 0 WEEDS CONTROLLED**

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

A reduction in the performance of this product could occur when applying to weeds heavily covered with dust For weeds that have been mowed grazed or cut allow re growth to occur before applying this product

When applying this product using a spray to wet technique with a handheld sprayer ensure that spray coverage is uniform and complete with at least 50 percent of the foliage or the top one half of the plant sprayed To ensure complete coverage spray both sides of large or tall weeds or when foliage is thick and dense or where there are multiple sprouts

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If the soil must be tilled or if weeds are to be mowed after application of this product wait a minimum of 7 days after application before tillage or mowing or the removal of residual vegetation to allow translocation of this product into underground plant parts

Refer to the following sections for application rates of this product for the control or partial control of annual and perennial weeds woody brush and trees For tough to control perennial weeds woody brush and trees or where plants are growing under stressed conditions or in areas of dense vegetation this product may be applied at a rate of 4 to 7 quarts per acre for enhanced results

This product may be tank mixed at any rate listed on this label with the following herbicides to increase the spectrum of emerged weeds controlled or to provide preemergence weed control or for even better control of some tough to control annual and perennial weeds woody brush and trees provided that the tank mix product is labeled for use at the application site Refer to the label of the tank mix product to determine approved uses and application rates

2 4 D	Gallery 75 DF	Landmark XP	Ronstar 50 WSP
Arsenal	Garlon 3A	Milestone	Sahara DG
atrazine	Garlon 4	Oust XP	simazine
Barricade 65WG	Goal 2XL	Outrider	Spike 80DF
Crossbow L	Hyvar X	Overdrive	Surflan AS
dicamba	Hyvar X L	pendimethalin	Surflan WDG
diuron	Krenite	Plateau	Telar DF
Endurance	Krovar I DF	Plateau DG	Transline
Escort	Landmark II MP	Poast	Velpar DF
Escort XP	Landmark MP	Quicksilver	Velpar L

Arsenal is not approved for use in the state of California

**10 1 Annual Weeds**

Apply 22 fluid ounces of this product per acre to control annual weeds less than 6 inches in height or runner length and 1 to 2 7 quarts per acre if weeds are over 6 inches tall or whenever weeds are growing under stressed conditions For best control of tough to control weeds apply this product at the higher rate within this range and early when the weeds are relatively small

When applying this product using a spray to wet technique with a handheld sprayer use a 0 4 percent solution to control annual weeds less than 6 inches in height or runner length or a 0 7 to 1 5 percent solution if they are taller than 6 inches and for all weeds growing under stressed conditions even if they are less than 6 inches tall Use the higher concentration within this range for tough to control weeds or for weeds over 24 inches tall

For low volume directed spray application use a 4 to 7 percent solution of this product

For best control of annual weeds apply this product prior to seed head formation in grass or prior to bud formation in broadleaf weeds

**Annual Weed Species**

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- Anoda spurred
- Barley
- Barnyardgrass
- Bassia fivehook
- Bittercress
- Black nightshade
- Bluegrass annual
- Bluegrass bulbous

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Brome downy  
Brome Japanese  
Browntop panicum  
Buttercup  
Carolina foxtail  
Carolina geranium  
Castorbean  
Cheatgrass  
Cheeseweed (*Malva parviflora*)  
Chervil  
Chickweed  
Cocklebur  
Copperleaf hophornbeam  
Corn  
Corn speedwell  
Crabgrass  
Dwarf dandelion  
Eastern manna grass  
Eclipta  
Fall panicum  
Falsedandelion  
Falseflax smallseed  
Fiddleneck  
Field pennycress  
Filaree  
Fleabane annual  
Fleabane hairy (*Conyza bonariensis*)  
Fleabane rough  
Florida pusley  
Foxtail  
Goatgrass jointed  
Goosegrass  
Grain sorghum (milo)  
Groundsel common  
Hemp sesbania  
Henbit  
Horseweed/Marestail (*Conyza canadensis*)  
Itchgrass  
Johnson grass seedling  
Junglerice  
Knotweed  
Kochia  
Lamb s quarters  
Little barley  
London rocket  
Mayweed  
Medusahead  
Morning glory (*Ipomoea spp*)  
Mustard blue  
Mustard tansy  
Mustard tumble

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Mustard wild  
 Oats  
 Pigweed  
 Plains/Tickseed coreopsis  
 Prickly lettuce  
 Puncturevine  
 Purslane common  
 Ragweed common  
 Ragweed giant  
 Red rice  
 Russian thistle  
 Rye  
 Ryegrass  
 Sandbur field  
 Shattercane  
 Shepherd s purse  
 Sicklepod  
 Signalgrass broadleaf  
 Smartweed ladysthumb  
 Smartweed Pennsylvania  
 Sowthistle annual  
 Spanishneedles  
 Speedwell purslane  
 Sprangletop  
 Spurge annual  
 Spurge prostrate  
 Spurge spotted  
 Spurry umbrella  
 Starthistle yellow  
 Stinkgrass  
 Sunflower  
 Teaweed/Prickly sida  
 Texas panicum  
 Velvetleaf  
 Virginia copperleaf  
 Virginia pepperweed  
 Wheat  
 Wild oats  
 Witchgrass  
 Woolly cupgrass  
 Yellow rocket

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**10 2 Perennial Weeds**

For best control of perennial weeds apply this product after they reach the reproductive stage of growth (seed head initiation in grasses and bud formation in broadleaves) For non flowering plants best control is obtained when the plants reach a mature stage of growth If application must be made before these growth stages are reached use the higher application rate within the given range

When applying this product using a spray to wet technique with a handheld sprayer to control harder to control perennials such as bermudagrass dock field bindweed hemp dogbane milkweed and Canada thistle use a 1 5 percent solution of this product

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For low volume directed spray application use a 4 to 7 percent solution of this product

Perennial Weed Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
Alfalfa	1 – 1.5	1.5
Alligatorweed	3	1
Anise (fennel)	1.3 – 2.7	1 – 1.5
Bahiagrass	2 – 3.3	1.5
Beachgrass European ( <i>Ammophila arenaria</i> )	–	3.5
Bentgrass	1	1.5
Bermudagrass	3.3	1.5
Bermudagrass water (knotgrass)	1	1.5
Bindweed field	2.7 – 3.3	1.5
Bluegrass Kentucky	1.5	1.5
Blueweed Texas	2.7 – 3.3	1.5
Brackenfern	2 – 3	1
Bromegrass smooth	1.5	1.5
Bursage woolly leaf	–	1.5
Canarygrass reed	1.5 – 2	1.5
Cattail	2 – 3.3	1.5
Clover red white	2 – 3.3	1.5
Cogongrass	2 – 3.3	1.5
Dallisgrass	2 – 3.3	1.5
Dandelion	2 – 3.3	1.5
Dock curly	2 – 3.3	1.5
Dogbane hemp	2.5	1.5
Fescue (except tall)	3	1.5
Fescue tall	2	1.5
German ivy	1.3 – 2.7	1 – 1.5
Gyneagrass	2	1
Horsenettle	2 – 3.3	1.5
Horseradish	3	1.5
Iceplant	1.3	1.5 – 2
Japanese knotweed	2.75	2
Jerusalem artichoke	2 – 3.3	1.5
Johnsongrass	1.3 – 2	1
Kikuyugrass	1.5 – 2	1.5
Knapweed	3	1.5
Lantana	–	1
Lespedeza	2 – 3.3	1.5
Milkweed common	2	1.5
Muhly wirestem	1.5	1.5
Mullein common	2 – 3.3	1.5

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<b>Perennial Weed Species</b>	<b>Broadcast Rate (quarts/acre)</b>	<b>Handheld Sprayer Concentration (% Solution)</b>
Napiergrass	2 – 3.3	1.5
Nightshade silverleaf	1.5	1.5
Nutsedge purple yellow	2	1 – 1.5
Orchardgrass	1.5	1.5
Oriental bittersweet	2	1.5
Pampasgrass	2 – 3.3	1 – 1.5
Paragrass	2 – 3.3	1.5
Pepperweed perennial	2.7	1.5
Phragmites	2 – 3.3	1 – 1.5
Poison hemlock	1.3 – 2.7	1 – 1.5
Quackgrass	1.3 – 2	1.5
Redvine	1.5	1.5
Reed giant	2.7 – 3.3	1.5
Ryegrass perennial	1.5 – 2	1
Smartweed swamp	2 – 3.3	1.5
Sowthistle perennial	1.5 – 2	1.5
Spurge leafy	–	1.5
Starthistle yellow	1.5	1.5
Sweet potato wild	–	1.5
Thistle artichoke	1.3 – 2	1 – 1.5
Thistle Canada	1.5 – 2	1.5
Timothy	1.5 – 2	1.5
Torpedograss	2.7 – 3.3	1.5
Trumpetcreeper	1.5 – 2	1.5
Vaseygrass	2 – 3.3	1.5
Velvetgrass	2 – 3.3	1.5
Wheatgrass western	1.5 – 2	1.5

Partial control only

This product alone will provide only partial control of bentgrass (*Agrostis spp*) For improved control apply 1.6 to 2.2 quarts of this product in a tank mix with 3.4 fluid ounces of Envoy 2.4 fluid ounces of Fusilade II 0.9 fluid ounces of Fusion or 6.0 fluid ounces of Vantage herbicide in a spray volume of 20 to 40 gallons per acre using broadcast application equipment For improved control using a handheld sprayer apply this product at a concentration of 1.5 fluid ounces plus 1.3 fluid ounces of Envoy 0.75 fluid ounces of Fusilade 0.25 fluid ounces of Fusion or 3 fluid ounces of Vantage herbicide per gallon of spray solution More than one application might be needed for complete control

10.3 Woody Brush and Trees

Apply this product after full leaf expansion unless otherwise directed on this label or in separate supplemental labeling or Fact Sheets published for this product Use the higher application rate within a given range when controlling larger brush and trees or in areas of dense growth or when controlling vines or plants that have reached the woody stage of growth Best control of woody brush and trees is obtained

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when this product is applied after fruit formation in late summer or fall. In arid areas, best control is obtained when application is made in the spring to early summer when brush species are at high moisture content and flowering.

When applying this product using a spray to wet technique with a handheld sprayer to control harder to control woody brush and trees, use a 1.5 percent solution of this product.

For low volume directed spray application, apply a 4 to 7 percent solution of this product.

When applying this product in the fall, some autumn color on unwanted deciduous species is acceptable provided no major leaf drop has occurred. Reduced performance of this product could result if application is made after a frost. Herbicidal symptoms might not appear prior to frost or senescence following a fall application.

Repeat applications of this product might be required to control plants regenerating from underground parts or from seed.

<b>Woody Brush and Tree Species</b>	<b>Broadcast Rate (quarts/acre)</b>	<b>Handheld Sprayer Concentration (% Solution)</b>
Alder	2 – 3	1
Ash	1.5 – 3.3	1 – 1.5
Aspen quaking	1.5 – 2	1
Bearclover (Bearmat)	1.5 – 3.3	1 – 1.5
Beech	1.5 – 3.3	1 – 1.5
Birch	1.5 – 2	1
Blackberry	2 – 3	1
Blackgum	1.5 – 3.3	1 – 1.5
Bracken	1.5 – 3.3	1 – 1.5
Broom French Scotch	1.3 – 3.3	1 – 1.5
Buckwheat California	1.3 – 2.5	1 – 1.5
Cascara	1.5 – 3.3	1 – 1.5
Catsclaw	–	1
Ceanothus	1.5 – 3.3	1 – 1.5
Chamise	1.3 – 3.3	1
Cherry bitter black pin	1.5 – 2	1
Coyote brush	2 – 2.7	1 – 1.5
Deerweed	1.3 – 3.3	1
Dogwood	1.5 – 3.3	1 – 1.5
Elderberry	1.5 – 2	1
Elm	1.5 – 3.3	1 – 1.5
Eucalyptus	–	1.5
Gorse	1.5 – 3.3	1 – 1.5
Hasardia	1.3 – 2.5	1 – 1.5
Hawthorn	1.5 – 2	1
Hazel	1.5 – 2	1
Hickory	1.5 – 3.3	1 – 1.5
Honeysuckle	2 – 3	1

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<b>Woody Brush and Tree Species</b>	<b>Broadcast Rate (quarts/acre)</b>	<b>Handheld Sprayer Concentration (% Solution)</b>
Hornbeam American	1.5-3.3	1-1.5
Kudzu	2.5-3.3	1.5
Locust black	1.5-2.5	1-1.5
Madrone re sprouts	-	1.5
Manzanita	1.5-3.3	1-1.5
Maple red	1.5-3	1
Maple sugar	-	1
Monkey flower	1.3-2.7	1-1.5
Oak black white	1.5-3	1-1.5
Oak northern pin	1.3-2.7	1
Oak post	2-3	1
Oak scrub	1.3-2.7	1
Oak southern red	1.5-2	1
Peppertree Brazilian (Florida holly)	1.3-3.3	1-1.5
Persimmon	1.5-3.3	1-1.5
Pine	1.5-3.3	1-1.5
Poison ivy	2.5-3.3	1.5
Poison oak	2.5-3.3	1.5
Poplar yellow	1.5-3.3	1-1.5
Rebud eastern	1.5-3.3	1-1.5
Rose multiflora	1.5	1
Russian olive	1.5-3.3	1-1.5
Sage black	1.3-2.7	1
Sage white	1.5-2.7	1-1.5
Sage brush California	1.3-2.7	1
Salmonberry	1.5-2	1
Saltcedar	1.5-3.3	1-1.5
Sassafras	1.5-3.3	1-1.5
Sourwood	1.5-3.3	1-1.5
Sumac laurel poison smooth sugarbush winged	1.5-3	1-1.5
Sweetgum	1.5-2	1
Swordfern	1.5-3.3	1-1.5
Tallowtree Chinese	-	1
Tan oak re sprouts	-	1.5
Thimbleberry	1.5-2	1
Tobacco tree	1.5-2.5	1-1.5
Toyon	-	1.5
Trumpet creeper	1.5-2	1
Vine maple	1.5-3.3	1-1.5
Virginia creeper	1.5-3.3	1-1.5



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<b>Woody Brush and Tree Species</b>	<b>Broadcast Rate</b> (quarts/acre)	<b>Handheld Sprayer Concentration</b> (% Solution)
Waxmyrtle southern	1.5 – 3.3	1 – 1.5
Willow	2 – 3	1
Yerba santa	–	1.5
Partial control		

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