STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO. 9322.117

21136J11-22M

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

# Roundup PRO®

Herbicide

Keep out of reach of children.

**CAUTION!** See inside for additional precautionary statements.

Read the entire label before using this product.
Lea las instrucciones completas en la etiqueta adjunta al envase.
Use only according to label instructions.

EPA Est. 524-IA-1
EPA Reg. No. 524-475

Packed for: MONSANTO COMPANY
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI, 63167 USA ©2011

Complete directions for use in the label booklet.

NET 2.5 GAL

ACTIVE INGREDIENT:
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt ..... 41.0%
OTHER INGREDIENTS (including surfactant):..... 59.0%
100.0%

*Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

Barcode Placeholder
070183888917

OPEN HERE

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES EYE IRRITATION. Avoid contact with eyes or clothing.

**FIRST AID:** Call a poison control center or doctor for treatment advice.

| | |
|---|---|
| **IF IN EYES** | • Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.<br>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye. |

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You may also contact **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **Roundup PRO® herbicide, EPA Registration No. 524-475.**

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

**Personal Protective Equipment (PPE)**

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

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

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

### Physical or Chemical Hazards

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

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

## DIRECTIONS FOR USE

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

### 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 (40 CFR Part 170) for agricultural pesticides. 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.

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

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

This product is protected by U.S. Patent Nos. 5,683,958; 5,703,015; 6,063,733; 6,121,199; 6,121,200. No license granted under any non-U.S. patent(s).

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

HINGE

HINGE

# Roundup PRO®

Herbicide

Keep out of reach of children.

## CAUTION!

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl)glycine,
in the form of its isopropylamine salt ..... 41.0%
OTHER INGREDIENTS (including surfactant):..... 59.0%
100.0%

*Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

**Precautionary Statements: Hazards to Humans and Domestic Animals.** CAUSES EYE IRRITATION. Avoid contact with eyes or clothing. **FIRST AID:** Call a poison control center or doctor for treatment advice. **IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.** Remove contact lenses if present after the first 5 minutes then continue rinsing eye. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **(314) 694-4000**, collect day or night, for emergency medical treatment information. This product is identified as **Roundup PRO® herbicide, EPA Registration No. 524-475.**

**Environmental Hazards:** Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

NET 2.5 GAL

## Storage and Disposal

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage or disposal. **PESTICIDE STORAGE:** Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination. **PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application in accordance with 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 procedures. **CONTAINER DISPOSAL:** 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. **CONTAINER HANDLING:** Triple rinse or pressure rinse container (or equivalent) 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 1/4 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 cleaned, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, puncture and dispose of in a sanitary landfill.

**See label booklet for complete PRECAUTIONARY LANGUAGE, PERSONAL PROTECTIVE EQUIPMENT, ENVIRONMENTAL HAZARDS, PHYSICAL OR CHEMICAL HAZARDS, AGRICULTURAL USE REQUIREMENTS and COMPLETE DIRECTIONS FOR USE.**

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

Roundup Pro and Monsanto and Vine Design are registered trademarks of Monsanto Technology LLC.

Packed For: MONSANTO COMPANY
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI, 63167 U.S.A.

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EPA Reg. No. 524-475
EPA Est. No. 524-IA-1

MONSANTO

21136J11-22M

2113618-26/53

# Roundup PRO®

Herbicide

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

## Complete Directions for Use

(91)211361082653

EPA Reg. No. 524-475

2010-1

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

2113618-26/53

# Roundup PRO®

Herbicide

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

## Complete Directions for Use

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

EPA Reg. No. 524-475 2010-1

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 isopropylamine salt | 41.0% |
| OTHER INGREDIENTS (including surfactant): | 59.0% |
| | 100.0% |

*Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent Nos. 5,683,958; 5,703,015; 6,063,733; 6,121,199; 6,121,200. No license granted under any non-U.S. patent(s).

# 2.0 IMPORTANT PHONE NUMBERS

FOR **PRODUCT INFORMATION** OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE,
**1-800-332-3111**.

IN CASE OF AN **EMERGENCY** INVOLVING THIS PRODUCT, OR FOR **MEDICAL ASSISTANCE**, CALL COLLECT, DAY OR NIGHT.
**(314)-694-4000**.

# 3.0 PRECAUTIONARY STATEMENTS

## 3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES EYE IRRITATION.

Avoid contact with eyes or clothing.

| | |
|---|---|
| **FIRST AID:** Call a poison control center or doctor for treatment advice. | |
| **IF IN EYES** | • Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.<br>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye. |
| • Have the product container or label with you when calling a poison control center or doctor, or going for treatment.<br>• You may also contact **(314) 694-4000**, collect day or night, for emergency medical treatment information.<br>• This product is identified as **Roundup PRO® herbicide, EPA Registration No. 524-475**. | |

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

**Personal Protective Equipment (PPE)**

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

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

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

## 3.3 Physical or Chemical Hazards

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

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

# DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental Labeling. Supplemental labeling may be found on the www.cdms.net or www.greenbook.net websites or obtained by contacting your Authorized Monsanto Retailer or Monsanto Company representative.

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

### Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls, chemical resistant gloves greater than 14 mils in thickness composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, shoes plus socks.

### 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 (40 CFR Part 170) for agricultural pesticides. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

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

# 4.0 STORAGE AND DISPOSAL

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

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

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application in accordance with 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 procedures.

**[FOR RIGID PLASTIC 2.5 GAL CONTAINERS OR OTHERS </= 5 GAL]**

**CONTAINER DISPOSAL:** 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.

**CONTAINER HANDLING:** Triple rinse or pressure rinse container (or equivalent) 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 1/4 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 cleaned, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, puncture and dispose of in a sanitary landfill.

**[FOR RIGID PLASTIC 30 GAL CONTAINERS OR OTHERS > 5 GAL]**

**CONTAINER DISPOSAL:** 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.

**CONTAINER HANDLING:** Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

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

Once cleaned, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, puncture and dispose of in a sanitary landfill.

# 5.0 PRODUCT INFORMATION

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

**Time to Symptoms:** This product moves through the plant from the point of foliage contact to and into the root system. Visible effects are a gradual wilting and yellowing of the plant, which 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 may not be visible for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms.

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

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

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

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

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

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

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

**Annual Maximum Use Rate:** The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or as tank mixtures, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. The combined total of all treatments must not exceed 10.6 quarts of this product per acre per year. See the "INGREDIENTS" section of this label for necessary product information.

**ATTENTION**

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

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

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

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

## 5.1 Weed Resistance Management

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

Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural or mechanical practices.

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

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

## 5.2 Management Instructions for Glyphosate-Resistant Weed Biotypes

**NOTE:** Appropriate testing is critical in order to confirm weed resistance to glyphosate. Contact your Monsanto representative to determine if resistance has been confirmed to any particular weed biotype in your area. Control instructions for biotypes confirmed as resistant to glyphosate are made available on separately published supplemental labeling or Fact Sheets for this product and may be obtained from your local retailer or Monsanto representative.

Follow good weed management practices to avoid the spread of confirmed resistant biotypes.

- If a naturally occurring resistant biotype is present at your site, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices may also be used as appropriate.
- Scout treated sites after herbicide applications and control escapes of resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving sites known to contain resistant biotypes.

# 6.0 MIXING

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

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

## 6.1 Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Begin filling the mixing tank or spray tank with the required amount of clean water. Add the specified amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

## 6.2 Tank Mixing Procedure

When tank mixing, read and carefully observe label directions, cautionary statements and all information on the labels of all products used. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the specified amount of this product.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation may be required to resuspend the mixture before spraying is resumed.

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

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance. Ensure that the specific tank mixture product is registered for application at the desired site.

Refer to the "**Tank Mixing**" section for additional precautions.

## 6.3 Mixing for Hand-Held Sprayers

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

**Spray Solution**

| | Amount of **Roundup PRO Herbicide** | | | | | |
|---|---|---|---|---|---|---|
| Desired Volume | 1/2% | 1% | 1-1/2% | 2% | 5% | 10% |
| 1 Gal | 2/3 oz | 1-1/3 oz | 2 oz | 2-2/3 oz | 6-1/2 oz | 13 oz |
| 25 Gal | 1 pt | 1 qt | 1-1/2 qt | 2 qt | 5 qt | 10 qt |
| 100 Gal | 2 qt | 1 gal | 1-1/2 gal | 2 gal | 5 gal | 10 gal |

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-up sprayers, mix the appropriate amount of this product with water in a larger container and then fill the sprayer with the mixed solution.

## 6.4 Colorants or Dyes

Colorants or marking dyes may be added to spray solutions of this product; however they may reduce product performance at lower rates or dilution. Use colorants or dyes according to the manufacturer's instructions.

# 7.0 APPLICATION EQUIPMENT AND TECHNIQUES

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

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

# 7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS SPECIFIED IN THIS LABEL or in separately published Monsanto Supplemental Labeling.

Use the specified rates of this herbicide in 3 to 25 gallons of water per acre. When used according to label directions, this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the "WEEDS CONTROLLED" section of this label.

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

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

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

**Aircraft Maintenance:** PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear is most susceptible.

**SPRAY DRIFT MANAGEMENT**

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

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

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

**AERIAL SPRAY DRIFT MANAGEMENT**

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

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the airstream and never be pointed downwards more than 45 degrees. Observe state regulations if they are more stringent.

**Importance of droplet size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see the "**Wind**", "**Temperature and Humidity**", and "**Temperature Inversion**" sections of this label).

**Controlling droplet size**

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure**: Use the lower spray pressures 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 airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom Length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height:** Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

**Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Increase swath distance with increasing drift potential (higher wind speed, smaller droplets, etc.).

**Wind**

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

**Temperature and Humidity**

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

**Temperature Inversions**

Do not make applications during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, movement of smoke produced by a ground source or an aircraft smoke generator can also identify temperature inversions. 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 sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

## 7.2 Ground Broadcast Equipment

Use the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, increase spray volume within the labeled range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

## 7.3 Backpack or Hand-Held Equipment

Apply to foliage of vegetation to be controlled on a spray-to-wet basis; do not spray to the point of runoff. Spray coverage should be uniform and complete. Use coarse sprays only.

## 7.4 Selective Equipment

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

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

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

Adjust application equipment used above desired vegetation so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting or destruction.

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

**Shielded and Hooded Applicators**

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide. Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

**Wiper Applicators and Sponge Bars**

A wiper or sponge applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if two (2) applications are made in opposite directions.

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

Do not use wiper applicators when weeds are wet.

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

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

**For Panel Applicators and Pressure-Feed Systems:** Use solutions ranging from 33 to 100 percent of this product in water.

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

| | |
|---|---|
| Corn, volunteer | Sicklepod |
| Panicum, Texas | Spanishneedles |
| Rye, common | Starbur, bristly |
| Shattercane | |

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

Beggarweed, Florida
Bermudagrass
Dogbane, hemp
Dogfennel
Guineagrass
Johnsongrass
Milkweed
Nightshade, silverleaf
Pigweed, redroot
Ragweed, common
Ragweed, giant
Smutgrass
Sunflower
Thistle, Canada
Thistle, musk
Vaseygrass
Velvetleaf

## 7.5 Injection Systems

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

## 7.6 CDA Equipment

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount specified in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply in 2 to 15 gallons of water per acre.

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

# 8.0 SITE AND USE INSTRUCTIONS

Unless otherwise specified, applications may be made to control any weeds listed in the "WEEDS CONTROLLED" section of this label. Refer also to the "**Selective Equipment**" section.

## 8.1 Cut Stumps

Cut stump treatments may be made on any site listed on this label. This product will control many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface **immediately after** cutting. Delays in application may result in reduced performance. For best results, make applications during periods of active growth and full leaf expansion.

Alder
Eucalyptus
Madrone
Oak
Reed, giant
Saltcedar
Sweetgum
Tan oak
Willow

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

## 8.2 Forestry Site Preparation

Use this product for the control or partial control of woody brush, trees and herbaceous weeds in forestry or in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product can also be used for site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

Refer to the "WEEDS CONTROLLED" and "**Woody Brush and Trees**" sections of this label for specific application rates and instructions.

Use higher rates of this product within the specified range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the specified range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the specified range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil. Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Unless otherwise directed, do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.

**TANK MIXTURES**

Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. This product may be tank-mixed with the following products provided that the specific product is registered for use on the target site. Refer to these product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

**NOTE:** For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any labeled rate of this product may be used in a tank mix with the following products for forestry site preparation.

| | |
|---|---|
| Arsenal Applicators Concentrate | Garlon 3A |
| Chopper | Garlon 4 |
| Escort | Oust |
| Escort XP | Oust XP |

# 8.3 Non-crop Areas and Industrial Sites

Use in areas such as airports, apartment complexes, Christmas tree farms, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, schools, sod or turf seed farms, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.

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

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

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

TANK MIXTURES: This product may be tank-mixed with the following products provided that the specific product is registered for use on the target site. Refer to these product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a single generic active ingredient listed below.

| | |
|---|---|
| Arsenal | Landmark II MP |
| atrazine | Oust |
| Barricade 65WG | Oust XP |
| Certainty® | Outrider® |
| Crossbow L | pendimethalin |
| dicamba* | Plateau |
| diuron | Poast |
| Endurance | Ronstar 50WP |
| Escort | simazine |
| Escort XP | Surflan AS |
| Gallery 75DF | Surflan WDG |
| Garlon 3A | Telar DF |
| Garlon 4 | Transline |
| Goal 2XL | Velpar DF |
| Krovar I DF | Velpar L |
| Landmark II | 2,4-D |

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

When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control or partial control of emerged perennial weeds, woody brush and trees.

For control or partial control of the following perennial weeds, apply 1 to 2 quarts of this product plus 2 to 4 ounces of Oust or Oust XP per acre.

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

**Chemical Mowing - Perennials**

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass covers. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre.

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

**Chemical Mowing - Annuals**

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 4 to 5 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Make applications when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

***Bromus* Species and Medusahead in Pastures and Rangelands**

***Bromus* species.** This product may be used to treat downy brome *(Bromus tectorum)*, Japanese brome *(Bromus japonicus)*, soft chess *(Bromus mollis)* and cheatgrass *(Bromus secalinus)* found in industrial, rangeland and pasture sites. Apply 8 to 16 fluid ounces of this product per acre on a broadcast basis.

For best results, coincide treatment with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Apply to the same site each year until seed banks are depleted and the desirable perennial grasses can become reestablished on the site.

**Medusahead.** To treat medusahead, apply 16 fluid ounces of this product per acre as soon as plants are actively growing, and prior to the 4-leaf stage. Applications may be made in the fall or spring.

Applications to brome and medusahead may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre. When applied as directed in this label, there are no grazing restrictions.

**Dormant Turfgrass**

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass

and bahiagrass turf. Treat only when turf is dormant and prior to spring greenup.

Apply 8 to 64 fluid ounces of this product per acre. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixtures of this product plus Oust or Oust XP in highly maintained turfgrass areas. For further uses, refer to the "**Roadsides**" section of this label, which gives rates for dormant bermudagrass and bahiagrass treatments.

**Actively Growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. DO NOT apply more than 16 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus Oust or Oust XP in highly maintained turfgrass areas. For further uses, refer to the "**Roadsides**" section of this label, which gives rates for actively growing bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

**Turfgrass Renovation, Seed, or Sod Production**

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS; RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow translocation into underground plant parts.

If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

## 8.4 Habitat Management

**Habitat Restoration and Management**

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

**Wildlife Food Plots**

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

## 8.5 Injection and Frill (Woody Brush and Trees)

This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment that must penetrate into the living tissue. Apply the equivalent of 1/25 fluid ounce (1 mL) of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100 percent concentration of this product. For best results, apply during periods of active growth and after full leaf expansion. This product will control many species, some of which are listed below:

| Control | Partial Control |
|---|---|
| Dogwood | Black gum |
| Oak | Hickory |
| Poplar | Maple, red |
| Sweetgum | |
| Sycamore | |

## 8.6 Hollow Stem Injection

This product may be applied through hand-held injection devices that deliver the specified amounts of this product into targeted hollow-stem plants growing in any non-crop site specified on this label. For control of the following hollow-stem plants, follow the use instructions below:

**Castorbean *(Ricinus communis)***

Inject 5 mL per plant of this product into the lower portion of the main stem.

**Hemlock, Poison *(Conium maculatum)***

Inject one leaf cane per plant 10 to 12 inches above root crown with 6 mL of a 5% v/v solution of this product.

**Hogweed, Giant *(Heracleum mantegazzianum)***

Inject one leaf cane per plant 12 inches above root crown with 6 mL of a 5% v/v solution of this product.

**Horsetail, Field *(Equisetum arvense)***

Inject one segment above the root crown with 0.6 mL per stem of this product. Use a small syringe that calibrates to this rate.

**Knotweed, Bohemian *(Polygonum bohemicum)***

Inject 6 mL per stem of this product between second and third internode.

**Knotweed, Giant *(Polygonum sachalinense)***

Inject 6 mL per stem of this product between second and third internode.

**Knotweed, Japanese *(Polygonum cuspidatum)***

Inject 6 mL per stem of this product between second and third internode.

**Reed, Giant *(Arundo donax)***

Inject 8 mL per stem of this product between second and third internode.

**Thistle, Canada *(Cirsium arvense)***

Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.6 mL per stem of this product is injected into the stem.

**NOTE:** Based on the maximum annual use rate of glyphosate for these non-crop sites, the combined total for all treatments must not exceed 10.6 quarts of this product per acre. At 6 mL per stem, 10.6 quarts should treat approximately 1700 stems.

## 8.7 Ornamentals, Plant Nurseries, and Christmas Trees

**Post-Directed, Trim-and-Edge**

This product may be used as a post-directed spray around established woody ornamental species such as arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product may also be used to trim-and-edge around trees, buildings, sidewalks and roads, potted plants and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established ornamental species.

**Site Preparation**

This product may be used prior to planting any ornamental, nursery or Christmas tree species.

**Wiper Applications**

This product may be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established eucalyptus or poplar trees. See the "**Selective Equipment**" section of this label for further information about the proper use of wiper applicators.

**Greenhouse/Shadehouse**

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

## 8.8 Parks, Recreational and Residential Areas

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

All of the instructions in the "**Non-Crop Areas and Industrial Sites**" section apply to park and recreational areas.

## 8.9 Railroads

The instructions in the "**Non-Crop Areas and Industrial Sites**" section may be used on railroads.

**Bare ground, Ballast and Shoulders, Crossings, and Spot Treatment**

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used, as weeds emerge, to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

TANK MIXTURES: This product may be tank-mixed with the following products for ballast, shoulder, spot, bare ground and crossing treatments provided that the specific product is registered for use on such sites. Refer to these product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring the mixture product's label allows the specific applications when tank mixing with a single generic active ingredient listed below:

| | | |
|---|---|---|
| Arsenal | Hyvar X | simazine |
| atrazine | Hyvar XL | Spike 80 DF |
| dicamba* | Krovar I DF | Telar DF |
| Escort | Oust | Transline |
| Escort XP | Oust XP | Velpar DF |
| Garlon3A | Outrider | Velpar L |
| Garlon 4 | Sahara DG | 2,4-D |

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

**Brush Control**

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4 to 10 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 3/4 to 2 percent solution of this product when using high-volume spray-to-wet applications. Apply a 5 to 10 percent solution of this product when using low volume directed sprays for spot treatment. This product may be mixed with the following products for enhanced control of woody brush and trees:

| | | |
|---|---|---|
| Arsenal | Krenite | Vanquish |
| Escort | Telar DF | Velpar DF |
| Escort XP | Tordon K | Velpar L |
| Garlon 3A | Tordon 22K | |
| Garlon 4 | Transline | |

**Bermudagrass Release**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 1 to 3 pints of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

| | |
|---|---|
| Bahiagrass | Johnsongrass |
| Bluestem, silver | Trumpetcreeper |
| Fescue, tall | Vaseygrass |

This product may be tank-mixed with Oust or Oust XP. If tank-mixed, use no more than 1 to 3 pints of this product with 1 to 2 ounces of Oust or Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust or Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

| | |
|---|---|
| Bahiagrass | Fescue, tall |
| Blackberry | Johnsongrass |
| Bluestem, silver | Poorjoe |
| Broomsedge | Raspberry |
| Dallisgrass | Trumpetcreeper |
| Dewberry | Vaseygrass |
| Dock, curly | Vervain, blue |
| Dogfennel | |

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications in the same season may cause severe injury.

## 8.10 Roadsides

The instructions in the "**Non-Crop Areas and Industrial Sites**" section may apply to roadsides.

**Shoulder Treatments**

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

**Guardrails and Other Obstacles to Mowing**

This product may be used to control weeds growing under guardrails and around signposts and immoveable other objects along the roadside.

**Spot Treatment**

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

TANK MIXTURES: This product may be tank-mixed with the following products for shoulder, guardrail, spot and bare ground treatments provided that the specific product is registered for use on such sites. Refer to these product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statement and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a single generic active ingredient listed below.

| | | |
|---|---|---|
| atrazine | Landmark MP | Poast |
| Crossbow L | Landmark II MP | Ronstar 50 WSP |
| dicamba* | Landmark XP | Sahara DF |
| diuron | Oust | Surflan AS |
| Endurance | Oust XP | Surflan WDG |
| Escort | Outrider | Telar DF |
| Escort XP | pendimethalin | Velpar DF |
| Gallery 75DF | Plateau | Velpar L |
| Krovar I DF | Plateau DG | 2,4-D |

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

See the "**Non-Crop Areas and Industrial Sites**" section of this label for tank mixing instructions.

**Release of Bermudagrass or Bahiagrass**

**Dormant Applications**

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product may also be tank-mixed with Oust or Oust XP for residual control. Tank mixtures of this product with Oust or Oust XP may delay greenup.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4- to 6-leaf stage.

Apply 8 to 64 fluid ounces of this product in a tank mixture with 0.75 to 1.33 ounces of Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

Apply 8 to 64 fluid ounces of this product per acre alone or in a tank mixture with 0.25 to 1 ounce per acre of Oust or Oust XP. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1 ounce of Oust or Oust XP per acre on bermudagrass and no more than 1/2 ounce of Oust or Oust XP per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

**Actively Growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 1 to 3 pints of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

| | |
|---|---|
| Bahiagrass | Johnsongrass |
| Bluestem, silver | Trumpetcreeper |
| Fescue, tall | Vaseygrass |

This product may be tank-mixed with Oust or Oust XP. If tank-mixed, use no more than 1 to 2 pints of this product with 1 to 2 ounces of Oust or Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust or Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

| | |
|---|---|
| Bahiagrass | Fescue, tall |
| Bluestem, silver | Johnsongrass |
| Broomsedge | Poorjoe |
| Dallisgrass | Trumpetcreeper |
| Dock, curly | Vaseygrass |
| Dogfennel | Vervain, blue |

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season may cause severe injury.

**Actively Growing Bahiagrass**

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full greenup or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider herbicide label in actively growing bahiagrass. Apply 6.25 ounces of this product with 0.75 to 2.0 ounces of Outrider herbicide per acre. Use only on well-established bahiagrass.

A tank mixture of this product plus Oust or Oust XP may be used. Apply 6 fluid ounces of this product plus 0.5 to 1.0 ounce of Oust or Oust XP per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

## 8.11 Utility Sites

Use this product along electrical power, pipeline and telephone rights-of-way, and in other sites associated with these rights-of-way, such as substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities.

This product may be used in utility sites and substations for bare ground, trim-and-edge around objects, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

This product can be used in preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way.

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. This product may be tank-mixed with the following products. Refer to these products' labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a single generic active ingredient listed below.

| | | |
|---|---|---|
| Arsenal | Krenite | Surflan AS |
| atrazine | Krovar I DF | Surflan WDG |
| dicamba[1] | Oust | Telar DF |
| diuron | Oust XP | Transline |
| Endurance | Outrider | Vanquish |
| Escort | pendimethalin | Velpar DF |
| Escort XP | Plateau | Velpar L |
| Garlon 3A* | Sahara DG | 2,4-D |
| Garlon 4[2] | simazine | |

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

[2] For side trimming treatments, this product can be used alone or in tank mixture with Garlon 4.

*Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray compatibility problems.

**Bare Ground and Trim-and-Edge**

This product may be used in utility sites and substations for bare ground, trim-and-edge around objects, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

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

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

| | |
|---|---|
| Arsenal | Plateau |
| Banvel | Princep DF |
| Barricade 65WG | Princep Liquid |
| diuron | Ronstar 50WP |
| Endurance | Sahara |
| Escort | simazine |
| Garlon 3A | Surflan |

# 9.0 WEEDS CONTROLLED

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

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

For low volume directed spray applications, use a 5 to 10 percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple resprouts.

Refer to the following label sections for rates to control annual and perennial weeds and woody brush and trees. For difficult to control annual or perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 5 to 10 quarts per acre for enhanced results.

## 9.1 Annual Weeds

Use 1 quart per acre if weeds are less than 6 inches in height or runner length and 1.5 quarts to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions. Use the higher rate for tough-to-control species regardless of the weed size at application. Treat tough-to-control weeds early when they are relatively small. This product may be tank-mixed provided that the specific tank-mix product is registered for use on the target site. Refer to these product labels for approved sites and application rates.

For spray-to-wet applications, apply a 1/2 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 1 to 2 percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

**WEED SPECIES**

Anoda, spurred
Barley*
Barnyardgrass*
Bassia, fivehook
Bittercress*
Black nightshade*
Bluegrass, annual*
Bluegrass, bulbous*
Brome, downy*
Brome, Japanese*
Browntop panicum*
Buttercup*
Carolina foxtail*
Carolina geranium
Castor bean
Cheatgrass*
Cheeseweed
*(Malva parviflora)*
Chervil*
Chickweed*
Cocklebur*
Copperleaf, hophornbeam
Corn*
Corn speedwell*
Crabgrass*
Dwarfdandelion*
Eastern mannagrass*
Eclipta*
Fall panicum*
Falsedandelion*
Falseflax, smallseed*
Fiddleneck
Field pennycress*
Filaree
Fleabane, annual*
Kochia
Lamb's-quarters*
Little barley*
London rocket*
Mayweed
Medusahead*
Morningglory
*(Ipomoea spp.)*
Mustard, blue*
Mustard, tansy*
Mustard, tumble*
Mustard, wild*
Oats
Pigweed*
Plains/Tickseed coreopsis*
Prickly lettuce*
Puncturevine
Purslane, common
Ragweed, common*
Ragweed, giant
Red rice
Russian thistle
Rye*
Ryegrass*
Sandbur, field*
Shattercane*
Shepherd's-purse*
Sicklepod
Signalgrass, broadleaf*
Smartweed, ladysthumb*
Smartweed, Pennsylvania*
Sowthistle, annual
Spanishneedles
Speedwell, purslane*
Sprangletop*
Fleabane, hairy
*(Conyza bonariensis)**
Fleabane, rough*
Florida pusley
Foxtail*
Goatgrass, jointed*
Goosegrass
Grain sorghum (milo)*
Groundsel, common*
Hemp sesbania
Henbit
Horseweed/Marestail
*(Conyza canadensis)*
Itchgrass*
Johnsongrass, seedling
Junglerice
Knotweed
Spurge, annual
Spurge, prostrate*
Spurge, spotted*
Spurry, umbrella*
Starthistle, yellow
Stinkgrass*
Sunflower*
Teaweed/Prickly sida
Texas panicum*
Velvetleaf
Virginia copperleaf
Virginia pepperweed*
Wheat*
Wild oats*
Witchgrass*
Woolly cupgrass*
Yellow rocket

*When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 1 pint of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

## 9.2 Perennial Weeds

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the specified range. Use a 2 percent solution on tough-to-control perennials such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed spot treatments, apply a 5 to 10 percent solution of this product.

Allow 7 or more days after application before tillage.

| Weed Species | Rate (QT/A) | Hand-Held % Solution |
|---|---|---|
| Alfalfa* | 1 | 2 |
| Alligatorweed* | 4 | 1.5 |
| Anise (fennel) | 2 - 4 | 1 - 2 |
| Bahiagrass | 3 - 5 | 2 |
| Beachgrass, European *(Ammophila arenaria)* | – | 5 |
| Bentgrass* | 1.5 | 2 |
| Bermudagrass | 5 | 2 |
| Bermudagrass, water (knotgrass) | 1.5 | 2 |
| Bindweed, field | 4 - 5 | 2 |
| Bluegrass, Kentucky | 2 | 2 |
| Blueweed, Texas | 4 - 5 | 2 |
| Brackenfern | 3 - 4 | 1 - 1.5 |
| Bromegrass, smooth | 2 | 2 |
| Bursage, woolly-leaf | – | 2 |
| Canarygrass, reed | 2 - 3 | 2 |
| Cattail | 3 - 5 | 2 |
| Clover; red, white | 3 - 5 | 2 |
| Cogongrass | 3 - 5 | 2 |
| Dallisgrass | 3 - 5 | 2 |
| Dandelion | 3 - 5 | 2 |
| Dock, curly | 3 - 5 | 2 |
| Dogbane, hemp | 4 | 2 |
| Fescue (except tall) | 3 - 5 | 2 |
| Fescue, tall | 1 - 3 | 2 |
| German ivy | 2 - 4 | 1 - 2 |
| Guineagrass | 3 | 1 |
| Horsenettle | 3 - 5 | 2 |
| Horseradish | 4 | 2 |
| Iceplant | 2 | 1.5 - 2 |
| Jerusalem artichoke | 3 - 5 | 2 |
| Johnsongrass | 2 - 3 | 1 |
| Kikuyugrass | 2 - 3 | 2 |
| Knapweed | 4 | 2 |
| Lantana | – | 1 - 1.25 |
| Lespedeza | 3 - 5 | 2 |
| Milkweed, common | 3 | 2 |
| Muhly, wirestem | 2 | 2 |
| Mullein, common | 3 - 5 | 2 |
| Napiergrass | 3 - 5 | 2 |
| Nightshade, silverleaf | 2 | 2 |
| Nutsedge; purple, yellow | 3 | 1 - 2 |
| Orchardgrass | 2 | 2 |
| Pampasgrass | 3 - 5 | 1.5 - 2 |
| Paragrass | 3 - 5 | 2 |
| Pepperweed, perennial | 4 | 2 |
| Phragmites* | 3 - 5 | 1 - 2 |
| Poison hemlock | 2 - 4 | 1 - 2 |
| Quackgrass | 2 - 3 | 2 |
| Redvine* | 2 | 2 |
| Reed, giant | 4 - 5 | 2 |
| Ryegrass, perennial | 2 - 3 | 1 |
| Smartweed, swamp | 3 - 5 | 2 |
| Spurge, leafy* | – | 2 |
| Sweet potato, wild* | – | 2 |
| Thistle, artichoke | 2 - 3 | 1 - 2 |
| Thistle, Canada | 2 - 3 | 2 |
| Timothy | 2 - 3 | 2 |
| Torpedograss* | 4 - 5 | 2 |

| Weed Species | Rate (QT/A) | Hand-Held % Solution |
|---|---|---|
| Trumpetcreeper* | 2 - 3 | 2 |
| Vaseygrass | 3 - 5 | 2 |
| Velvetgrass | 3 - 5 | 2 |
| Wheatgrass, western | 2 - 3 | 2 |

*Partial control

## 9.3 Woody Brush and Trees

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

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

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 5 to 10 percent solution of this product.

Symptoms may not appear prior to frost or senescence with fall treatments.

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

| Weed Species | Broadcast Rate (QT/A) | Hand-Held Spray-to-Wet % Solution |
|---|---|---|
| Alder | 3 - 4 | 1 - 1.5 |
| Ash* | 2 - 5 | 1 - 2 |
| Aspen, quaking | 2 - 3 | 1 - 1.5 |
| Bearclover (Bearmat)* | 2 - 5 | 1 - 2 |
| Beech* | 2 - 5 | 1 - 2 |
| Birch | 2 | 1 |
| Blackberry | 3 - 4 | 1 - 1.5 |
| Blackgum | 2 - 5 | 1 - 2 |
| Bracken | 2 - 5 | 1 - 2 |
| Broom; French, Scotch | 2 - 5 | 1.5 - 2 |
| Buckwheat, California* | 2 - 4 | 1 - 2 |
| Cascara* | 2 - 5 | 1 - 2 |
| Catsclaw* | – | 1 - 1.5 |
| Ceanothus* | 2 - 5 | 1 - 2 |
| Chamise* | 2 - 5 | 1 |
| Cherry; bitter, black, pin | 2 - 3 | 1 - 1.5 |
| Coyote brush | 3 - 4 | 1.5 - 2 |
| Deerweed | 2 - 5 | 1 |
| Dogwood* | 2 - 5 | 1 - 2 |
| Elderberry | 2 | 1 |
| Elm* | 2 - 5 | 1 - 2 |
| Eucalyptus | – | 2 |
| Gorse* | 2 - 5 | 1 - 2 |
| Hasardia* | 2 - 4 | 1 - 2 |
| Hawthorn | 2 - 3 | 1 - 1.5 |
| Hazel | 2 | 1 |
| Hickory* | 2 - 5 | 1 - 2 |
| Honeysuckle | 3 - 4 | 1 - 1.5 |
| Hornbeam, American* | 2 - 5 | 1 - 2 |
| Kudzu | 4 | 2 |

| Weed Species | Broadcast Rate (QT/A) | Hand-Held Spray-to-Wet % Solution |
|---|---|---|
| Locust, black* | 2 - 4 | 1 - 2 |
| Madrone resprouts* | – | 2 |
| Manzanita* | 2 - 5 | 1 - 2 |
| Maple, red | 2 - 4 | 1 - 1.5 |
| Maple, sugar | – | 1 - 1.5 |
| Monkey flower* | 2 - 4 | 1 - 2 |
| Oak; black, white* | 2 - 4 | 1 - 2 |
| Oak, post | 3 - 4 | 1 - 1.5 |
| Oak; northern, pin | 2 - 4 | 1 - 1.5 |
| Oak, Scrub* | 2 - 4 | 1 - 1.5 |
| Oak; southern red | 2 - 3 | 1 - 1.5 |
| Peppertree, Brazilian (Florida holly)* | 2 - 5 | 1 - 2 |
| Persimmon* | 2 - 5 | 1 - 2 |
| Pine | 2 - 5 | 1 - 2 |
| Poison ivy | 4 - 5 | 2 |
| Poison oak | 4 - 5 | 2 |
| Poplar, yellow* | 2 - 5 | 1 - 2 |
| Redbud, eastern | 2 - 5 | 1 - 2 |
| Rose, multiflora | 2 | 1 |
| Russian olive* | 2 - 5 | 1 - 2 |
| Sage, black | 2 - 4 | 1 |
| Sage, white* | 2 - 4 | 1 - 2 |
| Sage brush, California | 2 - 4 | 1 |
| Salmonberry | 2 | 1 |
| Saltcedar* | 2 - 5 | 1 - 2 |
| Sassafras* | 2 - 5 | 1 - 2 |
| Sourwood* | 2 - 5 | 1 - 2 |
| Sumac; laurel, poison, smooth, sugarbush, winged* | 2 - 4 | 1 - 2 |
| Sweetgum | 2 - 3 | 1 - 1.5 |
| Swordfern* | 2 - 5 | 1 - 2 |
| Tallowtree, Chinese | – | 1 |
| Tan oak resprouts* | – | 2 |
| Thimbleberry | 2 | 1 |
| Tobacco, tree* | 2 - 4 | 1 - 2 |
| Toyon* | - | 2 |
| Trumpetcreeper | 2 - 3 | 1 - 1.5 |
| Vine maple* | 2 - 5 | 1 - 2 |
| Virginia creeper | 2 - 5 | 1 - 2 |
| Waxmyrtle, southern* | 2 - 5 | 1 - 2 |
| Willow | 3 | 1 |
| Yerba Santa* | – | 2 |

*Partial control

# 10.0 LIMIT OF WARRANTY AND LIABILITY

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

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