70506-226 11/5/2009 1 of 7

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:	Date of Issuance:
70506-226	11-5-09

Term of Issuance: Conditional

Name of Pesticide Product:
Glypho 41 Herbicide

NOTICE OF PESTICIDE:
X Registration
_ Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

United Phosphorus, Inc.
630 Freedom Business Center
King of Prussia, PA 19406

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA provided you agree in writing to:

1. Submit the following outstanding product chemistry data requirement: one year storage stability and corrosion characteristics study, within one year from the date of this letter.

Signature of Approving Official:

Erik Kraft for

James Tompkins, Product Manager (25)
Herbicide Branch, Registration Division (7505P)

Date: 11-5-09

EPA Form 8570-6

2. Page 4, add "or rinseate" after "washwaters", Environmental Hazards section.

3. Page 5, change "general information" to "use information". Page 6, change "general weed management recommendations" to "weed management directions" and "management recommendations for glyphosate" to "management directions for glyphosate". Page 7, change "general information" to "use information".

4. Page 9, delete "recommended" from "when applied as recommended specified". Delete "general" from "general information". Page 11, change "should be familiar" to "must be familiar", Wind section. Change "applications should not" to "applications must not", Temperature Inversions section.

5. Page 13, delete "general" from "general directions", "General Use Instructions", and "General Precautions Restrictions" under section 5.0. Page 22, delete "General" from "General Weed Control". Page 23, delete "General" from "general directions", "General Use Instructions", "General Precautions Restrictions"

6. Page 30, delete "United Phosphorus Inc. recommends use of this product". Page 31, change "not recommended" to "not to be used for over the top…". Page 33, delete "General" from "General Precautions and Restrictions". Delete "general" from "general information". Page 36, delete "General" from "General Precautions, Restrictions". Page 37, change "not recommended" to "not to be used".

7. Page 41, delete "general" from "general weed control". Page 54, delete "general" from "general weed control". Page 57, change "this product is not recommended for use as an over the top" to "this product is not to be used as an over the top". Delete "General" from "General Non-Crop Areas…". Same for page 58.

8. Change the Signal Word to "Warning" and "Aviso". Change the Hazards to Humans and Domestic Animals statements to "Causes substantial but temporary eye injury. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin, eyes, or clothing." To the PPE section, add "Wear protective eyewear (goggles, face shield, or safety glasses) and chemical resistant gloves (such as natural rubber, selection category A)".

9. To the First Aid section, add "If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person. If on Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice."

10. To the Ag. Use Box, add "Protective eyewear (goggles, face shield, or safety glasses)."

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these conditions. If you have any questions please contact Erik Kraft at 703-308-9358 or kraft.erik@epa.gov.

GROUP	9	HERBICIDE

Glypho 41™ Herbicide

Herbicide for Roundup Ready® Crops

Selective broad-spectrum weed control in Roundup Ready crops.

Non-selective, broad-spectrum weed control for many cropping systems, farmsteads and Conservation Reserve Program acres.

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

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
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. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact The Rocky Mountain Poison Control Center at 1-866-673-6671 for emergency medical treatment information.	

SEE ATTACHED LABEL FOR ADDITIONAL PRECAUTIONARY INFORMATION.

United Phosphorus, Inc.
630 Freedom Business Center
King of Prussia, PA 19406

1-800-438-6071 • www.upi-usa.com

NET CONTENTS: 2.5 gallons

ACCEPTED with COMMENTS In EPA Letter Dated:
11-5-09
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
70506-226

EPA Reg. No. 70506-
EPA Est. No.

TABLE OF CONTENTS

1.0 How this product works
2.0 Weed Resistance Management
3.0 Mixing
4.0 Application Techniques and Equipment
5.0 Annual and Perennial Crops
- 5.1 Cereal and Grain Crops
- 5.2 Corn
- 5.3 Cotton
- 5.4 Fallow Systems
- 5.5 Grain Sorghum (milo)
- 5.6 Herbs and Spices
- 5.7 Oil Seed Crops
- 5.8 Soybeans
- 5.9 Sugarcane
- 5.10 Vegetable Crops
  - 5.10.1 Brassica Vegetables
  - 5.10.2 Bulb Vegetables
  - 5.10.3 Cucurbit Vegetables and Fruits
  - 5.10.4 Leafy Vegetables
  - 5.10.5 Fruiting Vegetables
  - 5.10.6 Legume Vegetables (Succulent or Dried)
  - 5.10.7 Root and Tuber Vegetables
- 5.11 Miscellaneous Crops

6.0 Tree, Vine, and Shrub Crops (Alphabetical)
- 6.1 Berry Crops
- 6.2 Citrus
- 6.3 Miscellaneous Tree Food Crops
- 6.4 Non-Food Tree Crops
- 6.5 Pome Fruit
- 6.6 Stone Fruit
- 6.7 Tree Nuts
- 6.8 Tropical and Subtropical Trees and Fruits
- 6.9 Vine Crops

7.0 Pasture Grasses, Forage Legumes and Rangelands
- 7.1 Alfalfa, Clover, and Other Forage Legumes
- 7.2 Conservation Reserve Program (CRP)
- 7.3 Grass or Turfgrass Seed Production
- 7.4 Pastures
- 7.5 Rangelands

8.0 Roundup Ready Crops
- 8.1 Alfalfa with the Roundup Ready Gene
- 8.2 Canola with the Roundup Ready Gene
- 8.3 Roundup Ready Corn 2
- 8.4 Cotton with the Roundup Ready Gene
- 8.5 Soybeans with the Roundup Ready Gene
- 8.6 Sugar Beets with the Roundup Ready Gene

9.0 Non-Crop Uses Around the Farmstead
- 9.1 General Weed Control, Trim and Edge
- 9.2 Greenhouse/Shadehouse
- 9.3 Chemical Mowing
- 9.4 Cut Stumps
- 9.5 Habitat Management

10.0 Annual Weeds Rate Table
- 10.1 Annual Weeds – Tank Mixtures with 2,4-Dicamba or Picloram

10.2 Annual Weeds – Hand-Held or Backpack Equipment
10.3 Annual Weeds – Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems

11.0 Perennial Weeds Rate Table (Alphabetical by Species)

12.0 Woody Brush and Trees Rate Table

13.0 Industrial, Turf and Ornamental use Directions

13.1 Cut Stumps

13.2 Forestry Site Preparation

13.3 General Non-Crop Areas and Industrial Sites

13.4 Habitat Management

13.5 Injection and Frill (Woody Brush and Trees)

13.6 Hollow Stem Injection

13.7 Nonfood Trees, Shrub or Vine Production Sites

13.8 Christmas Trees

13.9 Railroads

13.10 Roadsides

13.11 Utility Sites

13.12 Ground and Aerial Applications to Brush and Chaparral in California Only

13.13 Conifer Release

13.14 Selective Weed Control on Glyphosate-Tolerant Pure Gold® Tall Fescue and Aurora Gold® Fine Fescue Selections

13.15 Applications to Remove Undesirable Vegetation in Non-Agricultural Sites

15.0 Weeds Controlled

15.1 Annual Weeds

15.2 Perennial Weeds

15.3 Woody Brush and Trees

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION Avoid contact with eyes or clothing.

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

USER SAFETY RECOMMENDATIONS

Users should:

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

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. This product may only be used in accordance with the Directions for Use on this label or in separately published Supplemental Labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide 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 12 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 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.

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

Read the entire label before using this product. Use only according to label instructions. Read the "CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

1.0 GENERAL INFORMATION

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

OPTIONAL STATEMENT: No additional surfactant in the spray solution is needed or recommended. This includes additives containing surfactants, buffering agents or pH adjusting agents when this product is the only pesticide used unless otherwise directed. See Mixing section of this label for further instructions.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

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

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

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

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

Spray Coverage: For best results, ensure that spray coverage is uniform and complete. Do not spray weed 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 formation of specific amino acids.

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

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

Annual Maximum Use Rate: Except as otherwise specified in a crop section of this label, the combined total of all treatments must not be more than 8 quarts of this product per acre per year. For applications in non-crop sites or in tree, vine, or shrub crops, the combined total of all treatments must not be more than 10.6 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

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

2.0 WEED RESISTANCE MANAGEMENT

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

General Weed Management Recommendations

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

- Scout fields before and after herbicide applications.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (selective and/or a residual) and cultural practices (e.g. tillage or crop rotation) where appropriate. One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Use the specified label rate for the most difficult to control weed in the field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism) or tank mixture recommendations that encourage application rates of this product below the label instructions.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to lessen 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 UPI representative, local retailer, or county extension agent.

Management Recommendations for Glyphosate Resistant Biotypes

Note: Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Contact your UPI representative to determine if resistance has been confirmed to any particular weed biotype in your area, or visit on the internet www.weedresistancemanagement.com or www.weedscience.org. For more information see the ANNUAL WEEDS RATE section and PERENNIAL WEEDS RATE section of this label.

Control recommendations for biotypes confirmed as resistant to glyphosate are made available on separately published supplemental labeling or fact sheets for this product and can be obtained from your local retailer or UPI representative.

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

The following good agronomic practices should be used to reduce the spread of confirmed glyphosate-resistant biotypes:

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

3.0 MIXING

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

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

Use only clean stainless steel, aluminum, fiberglass, plastic or plastic-lined containers for mixing, storing, and application of spray solutions of this product. 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 risk of siphoning the contents of the tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by State or local regulations.

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

Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: First fill the mixing or spray tank with the required amount of water. Next 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.

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

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

Tank Mixing Procedure

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

1. Place a 20- to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. If ammonium sulfate is used add it slowly through the screen into the tank. Continue agitation. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding other products.
4. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
5. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
7. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
8. If a nonionic surfactant is used, add it to the spray tank before completing the filling process.
9. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water-soluble liquid followed by surfactant.

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

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

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance. Ensure that the specific tank mixture product is registered for application at the desired site. Refer to the "TANK MIXING" section of "GENERAL INFORMATION" for additional precautions.

Mixing for Hand-Held Sprayers

Use the following table to prepare the desired volume of spray solution by mixing the amount of this product in water:

Spray Solution

Amount of Glypho 41 Herbicide

Desired Volume	0.5%	1%	1.5%	2%	5%	10%
1 gal	0.7 oz	1.3 oz	2 oz	2.7 oz	6.5 oz	13 oz
25 gal	1 pt	1 qt	1.5 qt	2 qt	5 qt	10 qt
100 gal	2 qt	1 gal	1.5 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, mix the specified amount of this product with water in a larger container. Fill sprayer with the mixed solution.

Surfactants

Nonionic surfactants (NIS) or wetting agents that have at least 70 % active ingredient and which are labeled for use with herbicides may be added to the spray solution, unless otherwise directed. Do not reduce rates of this herbicide when adding surfactants. Read and follow the cautionary statements and other information appearing on the adjuvant label.

Ammonium Sulfate

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, particularly under hard water conditions, drought conditions or when tank mixed with certain residual herbicides, on annual and

perennial weeds. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactants. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

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

Colorants or Dyes
Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

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

4.0 APPLICATION TECHNIQUES AND EQUIPMENT

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

This product may be applied with the following application equipment:

Aerial – Fixed Wing and Helicopter

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

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

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

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

Injection Systems – Aerial or ground injection sprayers.

Controlled Droplet Applicator (CDA) – Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes. APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

Aerial Equipment
DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL. Use the specified rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 2 quarts per acre. Refer to the individual use area sections of this label for volumes, application rates, and further instructions.

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

FOR AERIAL APPLICATION IN CALIFORNIA OR SPECIFIC COUNTIES THEREIN, OR ARKANSAS, REFER TO THE INFORMATION BELOW. This product plus dicamba tank mixtures may not be applied by air in California.

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

See the GENERAL INFORMATION and MIXING Sections for essential product performance information.

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 disposing of equipment wash waters.

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

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

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

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the 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.

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

Aerial applications of this product are allowed in the following situations:
1. In fallow and reduced tillage systems before the emergence or transplanting of labeled crops.
2. In alfalfa and pasture renovation applications.
3. Over-the-top applications in Roundup Ready corn and cotton. Refer to the Glypho 41 Herbicide label and/or supplemental labels for specific application instructions for over-the-top applications in these crops.
4. Preharvest in alfalfa, corn, cotton, wheat, Roundup Ready corn and Roundup Ready cotton. Refer to the Glypho 41 Herbicide label and/or supplemental labels for Glypho 41 Herbicide for specific preharvest application instructions for each individual crop. Do not plant subsequent crops other than those listed in the label for 30 days following application.

When applied as recommended specified under the conditions described, this product controls annual and perennial weeds listed in the label. When tank mixing this product with 2,4-D for aerial applications, only 2,4-D amine formulations may be used. This tank mixture may be used for fallow and reduced tillage systems and alfalfa and pasture renovation applications only.

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

1 quart per acre: Corn, Roundup Ready Corn, Wheat

2 quarts per acre: Alfalfa, Cotton, Roundup Ready Cotton, Fallow, Reduced Tillage Systems, Pastures

Use the specified rates of this product in 3 to 15 gallons of water per acre.

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

Applicable Area
These directions only apply to the area contained inside the following boundaries within Fresno County, California.

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

General Information
Always read and follow the label directions and precautionary statements for all products used in the aerial application. Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

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

Aerial Applicator Training and Equipment
Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and

testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Applications at Night – Do not apply this product by air earlier than 30 minutes before 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.

Note: **For aerial application from April 1 through February 14, refer to section above. Aerial applications of this product are allowed in the following situations:**

1. Before the emergence or transplanting of labeled crops
2. Aid to burning for establishment and maintenance of fuel breaks
3. Establishing fire perimeters and black lines
4. Aid to prescribed burning
5. Along fire roads
6. Range conversion
7. Habitat restoration and management
8. Wildlife food plots

USE DIRECTIONS

Apply 1 to 5 quarts of this product in 5 to 15 gallons of water per acre using aerial (helicopter only) applications.

To broaden the spectrum of control, products containing triclopyr may be tank mixed with this product at the rate of 0.5 to 2 quarts per acre. The rate of triclopyr should not exceed one-half of the rate of this product (e.g. 1 quart of triclopyr to 2 quarts of this product) for best results.

AERIAL APPLICATION INSTRUCTIONS FOR 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.

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

Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Use coarse droplets in the 300 to 500 (VMD) micron range are recommended. Applications should typically be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

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

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

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

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

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

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

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. Where states have more stringent regulations, they must be observed.

Importance of Droplet Size

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

Controlling Droplet Size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application height:** 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 adjustment distance with increasing drift potential (higher wind, smaller droplets, etc.).

Wind

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

Temperature and Humidity

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

Temperature Inversions

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

Sensitive Areas

Only apply the product when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Avoid direct application to any body of water.

Aircraft Maintenance

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

Ground Broadcast Equipment

Use the specified 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 spray nozzles. Check for even distribution of spray droplets.

Hand-Held or Backpack Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, ensure that spray coverage is uniform and complete. Do not spray to the point of runoff. Use coarse sprays only. For rates and timing, refer to the "ANNUAL WEEDS – HAND-HELD OR BACKPACK EQUIPMENT" section of this product label.

Selective Equipment

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any non-crop site specified on this label. In cropping systems, hooded sprayers, shielded sprayers, and wipers may be used in row middles (in between rows of crop plants) where any dripping or leaking will not contact crop foliage, when listed under "TYPES OF APPLICATION" in the crop sections of this product's labeling. Such equipment must be capable of preventing all crop contact with herbicide solutions and operated without leakage of spray mists or dripping onto crop. Wipers over-the-top of crops may be used only when specifically indicated in this product's labeling.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION. Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Crop injury may occur when the foliage of treated weeds comes into contact with leaves of the crop. Do not apply this product when crop leaves are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction. Apply above the crops when the weeds are at least 6 inches above the desirable vegetation.

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

Shielded and Hooded Applicators

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

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

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

These procedures will reduce the potential for crop injury:

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

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

Wiper Applicators

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

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

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

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

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water. Do not add surfactant to the herbicide solution.

Rope or Sponge Wick Applicators

Solutions ranging from 33 to 75 percent of this product in water may be used.

Panel Applicators

Solutions ranging from 33 to 100 percent of this product in water may be used in panel wiper applicators.

Injection Systems

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

CDA Equipment

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

For the control of annual weeds with hand-held CDA units, apply a 20 % solution of this product at a flow rate of 2 fl. oz. 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 40 % solution of this product at a flow rate of 2 fl. oz. per minute and a walking speed of 0.75 miles per hour (2 to 4 quarts per acre).

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

5.0 ANNUAL AND PERENNIAL CROPS (Alphabetical)

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

Consult the "ROUNDUP READY CROPS" section of this label or separate Supplemental Labeling for instructions for treating Roundup Ready crops.

APPLICATION TYPES: Chemical Fallow, Preplant Fallow Beds, Preplant, At-Planting, Preemergence, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest Treatments.
GENERAL USE INSTRUCTIONS:
Apply this product during fallow intervals preceding planting, before planting or transplanting, at-planting, or preemergent to annual and perennial crops listed in this label, except where specifically limited. For any crop not listed in this label, applications must be made at least 30 days before planting. Unless otherwise specified, weed control applications may be made according to the rates listed in the ANNUAL WEEDS, PERENNIAL WEEDS, and WOODY BRUSH RATE TABLES in this label. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

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

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

GENERAL PRECAUTIONS, RESTRICTIONS:
Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days before harvest. Post-

harvest or fallow applications must be made at least 30 days before planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

In crops where spot treatments are allowed, do not treat more than 10 % of the total field to be harvested. The crop receiving spray in treated area will be killed. Avoid drift or spray outside the target area for the same reason. For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

5.1 Cereal and Grain Crops

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

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

APPLICATION TYPES: Those listed in Section 5.0 plus those listed below.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting of cereal crops. Applications must be made before emergence of the crop.

Red Rice Control Prior to Planting Rice
USE INSTRUCTIONS: Apply 1.5 quarts of this product in 5 to 10 gallons of water per acre. Flush fields before application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are in the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may be only partially controlled.

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

Spot Treatment (Except Rice)
USE INSTRUCTIONS: This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.

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

Over-the-Top Wiper Applicators (Feed Barley and Wheat Only)
USE INSTRUCTIONS: Wiper applications may be used in wheat and feed barley. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth, and when the rye is at least 6 inches above the wheat crop.

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

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

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

PRECAUTIONS, RESTRICTIONS: Do not apply more than 1 quart of this product per acre. Allow 7 days between application and harvest, feeding, or grazing. Preharvest application is not recommended for wheat or barley grown for seed, as a reduction in germination or vigor may occur.

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

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

For Control of Barnyardgrass (*Echinochloa Crus-Galli*) in Rice Using Renovation Treatments for California Only

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

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

Do not apply by air for rice renovation.

For Use Only in South Dakota for Non-Selective Control of Listed Annual Weeds in Small Grain Cropping Systems

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

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

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

NOTE: to prevent injury to adjacent desirable vegetation, maintain appropriate buffer zones.

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

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

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

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

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

5.2 Corn

Field corn, Seed corn, Silage corn, Sweet corn and Popcorn.

APPLICATION TYPES: Those listed in Section 5.0 plus those listed below. For Roundup Ready 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 mixture before, during or after planting corn. Applications must be made before emergence of the crop.

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

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.

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

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

Hooded Sprayers

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

PRECAUTIONS, RESTRICTIONS: Corn must be at least 12 inches tall, measured without extending leaves. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not apply more than 1 quart of this product per acre for each application and no more than 3 quarts per acre per year for hooded sprayer applications.

Spot Treatment

USE INSTRUCTIONS: For spot treatments, apply this product before silking of corn.

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

Preharvest
USE INSTRUCTIONS: Apply at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed). For ground applications, apply up to 3 quarts of this product per acre. For aerial applications, apply up to 2 quarts of this product per acre.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest, feeding or grazing. Preharvest application on corn grown for seed may cause a reduction in germination or vigor.

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

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

5.3 Cotton
APPLICATION TYPES: Those listed in Section 5.0 plus those listed below.

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

Preplant, At-Plantiong, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting cotton. Applications must be made before emergence of the crop.

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

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

Selective Equipment
USE INSTRUCTIONS: This product may be applied through hooded sprayers, recirculating sprayers, shielded applicators or wiper applicators in cotton.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest. See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Spot Treatment
USE INSTRUCTIONS: For spot treatments, apply this product before boll opening of cotton.

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

Preharvest
USE INSTRUCTIONS: This product provides weed control and cotton regrowth inhibition when applied before harvest of cotton. For weed control, apply at rates given in the ANNUAL, PERENNIAL and WOODY BRUSH WEED CONTROL TABLE sections of this label. For cotton regrowth inhibition, apply 1 pint to 2 quarts of this product per acre.

Up to 2 quarts of this product may be applied using either aerial or ground spray equipment. Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made before this time could affect maximum yield potential.

TANK MIXTURES: This product may be tank mixed with products containing tribufos, ethephon, or thidiazuron + diuron to provide additional enhancement of cotton leaf drop.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest of cotton. Preharvest application is not recommended for cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES, OTHER THAN THOSE LISTED ON THIS LABEL, FOR PREHARVEST APPLICATION OF THIS PRODUCT TO COTTON IS PROHIBITED.

5.4 Fallow Systems
This product may be applied during the fallow period before planting or emergence of any crop on this label. For crops not on this label, applications must be made at least 30 days before planting.

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

Chemical Fallow

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

PRECAUTIONS, RESTRICTIONS:. Do not apply dicamba tank mixtures by air in California. Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba is applied within 45 days of planting.

Preplant Fallow Beds

USE INSTRUCTIONS: This product may be applied to fallow beds before planting or emergence of any crop listed on this label. This product will control weeds listed in the "ANNUAL, PERENNIAL and WOODY BRUSH WEED CONTROL TABLE" sections of this label.

TANK MIXTURES: In addition, 12 fl. oz. of this product plus 2 to 3 fl. oz. of a product containing oxyfluorfen (such as Goal™ 2XL) per acre will control the following weeds with the maximum height or length indicated: 3" – common cheeseweed, chickweed, groundsel; 6" – London rocket, shepherd's-purse.

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

Aid-to-Tillage

USE INSTRUCTIONS: This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 12 fl. oz. of this product in 3 to 10 gallons of water per acre. Apply before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage.

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

5.5 Grain Sorghum (Milo)

APPLICATION TYPES: Those listed in Section 5.0 plus the following: Spot Treatment, Over-the-Top Wiper Applicators, Preharvest.

Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied alone or in tank mixture before, during or after planting grain sorghum. Applications must be made before emergence of the crop. TANK MIXTURES: This product may be tank mixed with other products provided that the specific product is registered for application before planting grain sorghum. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased for acceptable weed control.

Spot Treatment and Over-the-Top Wiper Applications

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

PRECAUTIONS, RESTRICTIONS: For spot treatment, do not treat more than 10 % of the total field area to be harvested. The crop receiving spray in treated area will be killed. Avoid drift or spray outside target area for the same reason. For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

Hooded Sprayers

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

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

PRECAUTIONS, RESTRICTIONS: Milo must be at least 12 inches tall, measured without extending leaves. Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed. Contact of this product in any manner

to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers. Do not apply more than 1 quart of this product per acre per application and no more than 3 quarts per acre per year for hooded sprayer applications.

Preharvest
USE INSTRUCTIONS: Apply at 30 percent grain moisture or less.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 2 quarts of this product per acre. As with other herbicides that cause sudden plant death, avoid preharvest applications of this product to milo infected with charcoal rot as lodging can occur. Allow at least 7 days between application and harvest, feeding, or grazing of sorghum. Preharvest application is not recommended for sorghum grown for seed, as a reduction in germination or vigor may occur. The use of this product for preharvest grain sorghum (milo) is not registered in California

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

This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression.

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

5.6 Herbs and Spices

Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Chamomile, 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 and 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.

APPLICATION TYPES: Those listed in Section 5.0 plus the following: Over-the-Top Wiper Applications (Peppermint and Spearmint Only), Spot Treatments (Peppermint and Spearmint Only).

PRECAUTIONS, RESTRICTIONS: When applying this product before transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic before planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Take care to ensure that the water flushes off the plastic mulch and does not enter the transplant holes. For some crops below, it is preferred to make applications 3 days before transplanting or planting.

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

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest. Further applications may be made in the same area at 30 day intervals. In spot treatment applications, do not treat more than 10 % of the total field area to be harvested at one time. The crop receiving spray in the treated area will be killed. Avoid drift or spray outside the target area for this reason. In wiper applications, contact of the herbicide solution with the crop may result in damage or destruction.

5.7 Oil Seed Crops

Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower. For Roundup Ready canola, see the "ROUNDUP READY CROPS" section of this label.

APPLICATION TYPES: Those listed in Section 5.0.

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

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

PRECAUTIONS, RESTRICTIONS: Do not apply more than 2 quarts of this product per acre on canola. Do not apply more than 1 quart of this product per acre for sunflowers as a single preplant or preemergent application per year. Do not feed or graze sunflower forage following application of this product.

5.8 Soybeans

APPLICATION TYPES: Those listed in Section 5.0 plus the following: spot treatment, preharvest, selective equipment. For Roundup Ready soybeans, 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 soybeans. Applications must be made before emergence of the crop.

TANK MIXTURES: This product may be tank mixed with other products, provided that the specific product is registered for this use on soybeans. Apply tank mixtures in 10 to 20 gallons of water per acre.

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall.

Spot Treatment

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

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

Preharvest

USE INSTRUCTIONS: This product provides weed control when applied before harvest of soybeans after pods have set and lost all green color. Apply at rates given in the ANNUAL WEEDS, PERENNIAL WEEDS and WOODY BRUSH RATE TABLES. This product may be applied using either aerial or ground spray equipment. . Avoid excessive seed shatter loss due to ground application equipment.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 5 quarts per acre of this product for preharvest applications. Do not apply more than 2 quarts per acre of this product by air. Allow at least 7 days between application and harvest of soybeans. Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. (If the application rate is 1 quart per acre or lower, the grazing restriction is reduced to 14 days after last preharvest application.) Preharvest application is not recommended for soybeans grown for seed, as a reduction in germination or vigor may occur.

Selective Equipment

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

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

5.9 Sugarcane

APPLICATION TYPES: Those listed in Section 5.0, plus Spot Treatment, Sugarcane Ripening.

Preplant, At-Planting, Preemergence

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

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

Spot Treatment

USE INSTRUCTIONS: This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, make a 1 % solution of this product in water and spray-to-wet the foliage of vegetation to be controlled. Treat volunteer or diseased sugarcane that has at least 7 new leaves.

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

Fallow Treatments

USE INSTRUCTIONS: This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage. Ground or aerial application equipment may be used. Applications up to 3 quarts per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used.

Hooded Sprayers

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

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

Sugarcane Ripening

USE INSTRUCTIONS: This product may be applied to foliage as a plant growth regulator to hasten ripening and increase the level of sucrose in sugarcane. It is effective in both low and high-tonnage sugarcane.

When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane.

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

Most of the sucrose increase is concentrated in the top nodes of the treated sugarcane stalk. In order to maximize sugar where topping is practiced during harvest, top at the base of the fourth leaf.

APPLICATION RATES: use the listed application rate and timing instructions according to the state in which the sugarcane is grown. Use the higher rate within the range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

State	Rate/A	Timing
Florida	7 to 16 fl. oz. product	Apply 3 to 5 weeks before harvest of LAST RATOON CANE ONLY
Hawaii	12 to 28 fl. oz product	Apply 4 to 10 weeks before harvest
Louisiana	5 to 16 fl. oz. product	3 to 7 weeks before harvest of RATOON CANE ONLY
Puerto Rico	7 fl. oz. product	3 to 5 weeks before harvest of RATOON CANE ONLY
Texas	7 to 16 fl. oz. product	3 to 5 weeks before harvest of RATOON CANE ONLY

PRECAUTIONS, RESTRICTIONS: Before application consult your state sugarcane authority or local UPI representative regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated.

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

Rainfall within 6 hours after application may reduce effectiveness.

Do not apply to sugarcane grown for seed, as a reduction in germination or vigor may occur.

Do not feed or graze treated sugarcane forage following application. Do not plant subsequent crops in treated fields other than the following for 30 days after application: 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.

5.10 Vegetable Crops

NOTE: THIS "VEGETABLE CROPS" SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED VEGETABLE CROPS WITHIN SECTION 5.10 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

APPLICATION TYPES: Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, Prior to Transplanting Vegetables, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest, Selective Applications (Nonbearing Ginseng), Over-the-Top Wiper Applications (Rutabagas Only), Spot Treatment, or Preharvest (Dry Beans, Peas, Lentils and Chickpeas Only)

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

Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged

seedlings. In crops with vines, make hooded sprayer, shielded sprayer, and wiper application to row middles before vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days before harvest. Post-harvest or fallow applications must be made at least 30 days before planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

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

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

5.10.3 Cucurbit Vegetables and Fruits
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, straight-neck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

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

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

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

5.10.5 Fruiting Vegetables
Eggplant, Groundcherry (*Physalis spp),* Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

PRECAUTIONS, RESTRICTIONS: For Eggplant, Ground cherry, Pepper (all), and Tomatillo, allow at least 3 days between application and planting. For tomato and tomatillos grown on sandy soil, do not make hooded, shielded sprayer or wiper applications in row middles because of potential for crop injury.

5.10.6 Legume Vegetables (Succulent or Dried)
Bean (*Lupinus*: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus*: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna*: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yard-long 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.

Preharvest and Spot Treatments of Weeds (Dry Beans, Peas, Lentils, and Chickpeas only)

USE INSTRUCTIONS: This product may be applied as an over-the-top broadcast spray or as a spot treatment to control labeled weeds in dry beans, peas, lentils, or chickpeas. For spot treatment, to control troublesome weeds such as Canada thistle, quackgrass, mayweed (dog fennel), and milkweed, apply in 10 to 20 gallons of water per acre through ground broadcast spray equipment or use a 2% solution in a hand-held sprayer. For preharvest treatments, apply in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30% grain moisture or less).

CROP	MAXIMUM RATE/A	PREHARVEST INTERVAL	LOCATION
Dry Beans	32 fl. oz.	7 days	All states
Dry Peas, Lentils,	26 fl. oz.	14 days	Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska,

Chickpeas			N. Dakota, Oregon, S. Dakota, Washington, Wisconsin

PRECAUTIONS, RESTRICTIONS: Follow the limitations in the table. Do not apply more than once per year. Do not combine a preharvest spray with a spot treatment on the same area. Allow at least 30 days between treatment and the planting of any crop not listed on this label. Do not feed treated vines and hay from these crops to livestock. Do not treat cowpeas or field (feed) peas, since these crops are considered to be grown as livestock feed. Do not apply preharvest to dry legumes grown for seed, because reduction in germination or vigor may occur.

5.10.7 Root and Tuber Vegetables

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.

Selective Equipment Applications (Non-bearing Ginseng Only)

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

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

Over-the-Top Wiper Applications (Rutabagas Only)

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

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

5.11 Miscellaneous Crops

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

APPLICATION TYPES: Those listed in Section 5.0 plus the following: General weed control, Site preparation, Spot Treatment (Asparagus). For Roundup Ready sugar beets, see the "ROUNDUP READY CROPS" section of this label.

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

General Weed Control, Site Preparation

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

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

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

Spot Treatment (Asparagus)

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

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

Post-Harvest (Asparagus)

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

PRECAUTIONS, RESTRICTIONS: Direct contact of the spray with the asparagus may cause serious crop injury.

6.0 TREE, VINE, AND SHRUB CROPS (Alphabetical)

NOTE: THIS SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED TREE, VINE, AND SHRUB CROPS WITHIN SECTION 6.0 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

APPLICATION TYPES: Preplant (Site Preparation) Broadcast Sprays, General Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees, vines or bushes), Selective Equipment (Shielded Sprayers, Wiper Applications), Directed Sprays, Spot Treatments, Perennial Grass Suppression, Cut Stump.

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

GENERAL USE INSTRUCTIONS:
This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for general weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries, and vineyards. It may also be used for site preparation before planting or transplanting these crops. Apply 1 pint to 5 quarts per acre according to the ANNUAL and PERENNIAL WEEDS RATE TABLES sections of this label. Utilize rates at the higher end of the specified rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 10.6 quarts per acre per year.

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

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

Allow at least 3 days between application and transplanting.

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

TANK MIXTURES: A tank mixture of this product plus a product containing oxyfluorfen (such as Goal 2XL) may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. This mixture is preferred when weeds are stressed or growing in dense populations. 16 to 32 fl. oz. per acre of this product plus 3 to 12 fl. oz. per acre of oxyfluorfen will control common cheeseweed (malva) or hairy fleabane (*Conyza bonariensis*) with a maximum height or diameter of 3 inches , and annual weeds with a maximum height or diameter of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's-purse, annual sowthistle, filaree (suppression), horseweed/marestail (*Conyza canadensis*), stinging nettle and common purslane (suppression).

Strips (in rows of trees, vines, or bushes)
TANK MIXTURES: This product may be tank mixed with other products, provided that the specific product is registered for this use in rows of tree or vine crops.

Do not apply tank mixtures in Puerto Rico. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

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

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fl. oz. of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 6 fl. oz. of this product per acre. Do not add ammonium sulfate.

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

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fl. oz. of this product in 10 to 25 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made before seedhead emergence.

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

For burndown of Bermudagrass, apply 1 to 2 quarts of this product in 3 to 20 gallons of water per acre. Use this treatment only if reduction of the Bermudagrass stand can be tolerated. When burndown is required before harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of Bermudagrass, apply 6 to 16 fl. oz. of this product per acre east of the Rocky Mountains and 16 fl. oz. of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the Bermudagrass is mowed before application, maintain at least 3 inches in height. Sequential applications may be made when regrowth occurs and Bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, use rates of 6 to 10 fl. oz. of this product per acre in shaded conditions or where a lesser degree of suppression is desired.

Cut Stump (Tree Crops)

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

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

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

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

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

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

6.1 Berry Crops

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

APPLICATION TYPES: Those listed in Section 6.0 plus Spot Treatment in Cranberry Production and Post Harvest Treatments in Cranberry Production.

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

Spot Treatment in Cranberry Production

USE INSTRUCTIONS: Spot treatments may be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. Drop water level to remove standing water in ditches before application. In hand-held sprayers, use 1 to 2 percent solution of this product. Spray to wet vegetation, not to run-off.

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

Post-Harvest Treatments in Cranberry Production

USE INSTRUCTIONS: Application of this product may be made after the harvest of cranberries to control weeds growing within the field. For best results apply to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers, or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. If using hand-held sprayers, use a 0.5 to 1 percent solution of this product. Spray to wet vegetation, not to run-off. If using hand-held boom sprayers, apply 2 to 4 quarts of this product per acre.

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

6.2 Citrus

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

APPLICATION TYPES: Those listed in Section 6.0.

USE INSTRUCTIONS: (The directions below pertain to applications in Florida and Texas only)

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

For goatweed, apply 2 to 3 quarts of this product per acre in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches tall. If goatweed is more than 8 inches tall, the addition of Krovar™ I or Karmex™ may improve control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Perennial weeds:

	Glypho 41 Herbicide RATE PER ACRE			
WEED SPECIES	1 QT	2 QT	3 QT	5 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

S = Suppression B = Burndown

PC = Partial control C = Control

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

6.3 Miscellaneous Tree Food Crops

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

APPLICATION TYPES: Those listed in Section 6.0.

6.4 Non-Food Tree Crops

Pine, Poplar, Eucalyptus, Christmas Trees, Alll other non-food tree crops.

APPLICATION TYPES: Those listed in Section 6.0.

Directed Sprays, Spot Treatment, Wiper Applications

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

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

material. UNLESS OTHERWISE DIRECTED, THIS PRODUCT SHOULD NOT BE USED AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES AND OTHER PINE TREES.

Site Preparation
USE INSTRUCTIONS: This product may be used before planting non-food tree crops.

PRECAUTIONS, RESTRICTIONS: Take precautions to protect nontarget plants during site preparation applications.

6.5 Pome Fruit
Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

APPLICATION TYPES: Those listed in Section 6.0.

PRECAUTIONS, RESTRICTIONS: Allow at least 1 day between last application and harvest in pome crops.

6.6 Stone Fruit
Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all types), Plumcot.

APPLICATION TYPES: Those listed in Section 6.0.

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

Restrictions on Application Equipment
For cherries, any application equipment listed in this section may be used in all states.

Remove suckers and low-hanging limbs at least 10 days before application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

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

APPLICATION TYPES: Those listed in Section 6.0.

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

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

APPLICATION TYPES: Those listed in Section 6.0 plus Bananacide (banana only).

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

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

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

PRECAUTIONS, RESTRICTIONS: Do not apply more than 0.5 fluid ounce (15 mL) of this product's concentrate per mat (or unit). Remove all fruit from plants and mats (or units) before treatment. Do not harvest any fruit or plant materials from treated mats (or units) following injection.

Do not allow livestock to consume treated plant materials. Following transplant of new banana plants into treated areas, allow plants to become established for 3 months before applying this product for general weed control.

6.9 Vine Crops

Grapes (raisin, juice, table, wine), Hops, Kiwi, Passion fruit.

APPLICATION TYPES: Those listed in Section 6.0. Do not apply when green shoots, canes or foliage are in the spray zone. In the northeast and Great Lakes regions, applications must be made before the end of bloom stage of grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.

PRECAUTIONS, RESTRICTIONS: Allow at least 14 days between last application and harvest in vine crops. Do not use selective equipment in kiwi.

7.0 PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS

7.1 Alfalfa, Clover, and Other Forage Legumes

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

APPLICATION TYPES: Preplant, At-Planting, Preemergence, Spot Treatment (Alfalfa and Clover Only), Over-the-Top Wiper Applicators (Alfalfa and Clover Only), Renovation, Preharvest (except Kenaf and Leucanea), Stand Removal

Preplant, At-Planting, Preemergence

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

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

Preharvest (Except Kenaf and Leucanea)

USE INSTRUCTIONS: This product may be used in declining alfalfa stands or any stand of alfalfa where crop destruction is acceptable. This application will severely injure or destroy the stand of alfalfa. This product will control annual and perennial weeds, including quackgrass, when applied before the harvest of alfalfa. Applications may be made at any time of the year.. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing. Treatments for quackgrass must be followed by deep tillage for complete control.

PRECAUTIONS, RESTRICTIONS: Make only one application to an existing stand of alfalfa per year. Refer to table below for rates and intervals for harvesting and feeding to livestock.

Crop	Maximum single application rate	Minimum interval between application and harvest or grazing
Alfalfa	2 quarts per acre	36 hours
All other listed legumes	3 pints per acre	3 days

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

Spot Treatment, Over-the-Top Wiper Applications

USE INSTRUCTIONS: This product may be applied as a spot treatment in alfalfa or clover. This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label. Applications may be made in the same area at 30-day intervals.

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

Dormant Treatment (Alfalfa Only)

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

Apply 8 to 12 fl. oz. per acre of this product. Apply in the spring to alfalfa that is dormant. Application should be made after spring temperatures have warmed enough to encourage resumption of weed growth, but before initiation of trifoliate leaf expansion of the alfalfa. Applications made after expansion of the first trifoliate leaf of the alfalfa will cause growth reduction and reduced crop yield.

Do not use ammonium sulfate when spraying dormant alfalfa with this product.

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

Do not make more than one application per year.

Allow 36 hours after application before grazing livestock or harvesting.

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

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

Renovation, Stand Removal
USE INSTRUCTIONS: This product may be applied as a broadcast spray to remove established stands of alfalfa, clover, and other forage legumes listed on this label. If the crop is to be grazed or harvested for feed, use up to a maximum of 2 quarts per acre in alfalfa and up to 3 pints per acre in other labeled legumes. For complete removal of established stands of clover, it may be necessary to use treatment rates greater than this, as listed in the "PERENNIAL WEEDS RATE SECTION" of this label.

PRECAUTIONS, RESTRICTIONS: For applications up to 2 quarts per acre for alfalfa or 3 pints per acre for all other forage legumes, remove domestic livestock before application, follow the minimum harvest or grazing intervals in the table above under Preharvest in this section. For treatment rates above these levels, do not graze or harvest treated foliage for livestock feed or allow grazing. Crops listed on this label may be planted into the treated area at any time; for all other crops, wait at least 30 days between application and planting.

7.2 Conservation Reserve Program (CRP)
APPLICATION TYPES: Renovation (rotating out of CRP), Site preparation, Postemergence weed control in dormant CRP grasses, Over-the-Top Wiper applications.

Renovation (Rotating Out of CRP), Site Preparation
USE INSTRUCTIONS: This product may be used to prepare CRP land for crop production. Refer to Federal, state or local use guides for CRP renovation recommendations. For any crop not listed in the "CROPS" section of the label, applications must be made at least 30 days before planting.

Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Applications
USE INSTRUCTIONS: This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 12 to 16 fl. oz. 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 applications can be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS, RESTRICTIONS: Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. Do not apply more than 3 quarts per acre per year onto CRP grasses.

7.3 Grass Seed or Sod Production
Any grass (*Gramineae* family) except corn, sorghum, sugarcane and those listed above under "CEREAL CROPS".

APPLICATION TYPES: Preplant, At-Planting, Preemergence, Renovation, Site Preparation, Shielded Sprayers, Over-the-Top Wiper Applications, Spot Treatments, Removal of Established Stands, Creating Rows in Annual Ryegrass.

Preplant, Preemergence, Renovation, Removal of Established Stands, Site Preparation
USE INSTRUCTIONS: This product controls most existing vegetation before renovating turf or forage grass seed areas or establishing truf grass grown for sod. It may be used to destroy undesirable grass vegetation when production fields are converted to alternate species or crops. Apply before, during, or after regrowth from escaped underground plant parts occurs. Where existing vegetation is growing under mowed turf management, apply this product after omitting at least one regular mowing to allow enough growth for good interception of the herbicide spray. Where repeat treatments are necessary, sufficient regrowth must be attained before application. For warm-season grasses, such as Bermudagrass, summer or fall applications provide best control. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates of up to 5 quarts per acre may be used to completely remove established stands of difficult to control grass species.

PRECAUTIONS, RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Avoid tillage or renovation techniques such as vertical mowing, delay coring or slicing for 7 days after application to allow proper translocation into underground plant parts. Do not feed or graze treated areas for 8 weeks following application. 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.

Shielded Sprayers
USE INSTRUCTIONS: Apply 1 to 3 quarts of this product as a broadcast spray in 10 to 20 gallons of water per acre to control weeds in the rows. Uniform planting in straight rows aids in shielded sprayer applications. For best results apply when the grass seed crop is small enough to easily pass by or through the protective shields.

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

Over-the-Top Wiper Applications
PRECAUTIONS, RESTRICTIONS: Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Adjust applicators so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds should be at least 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. Better results may be obtained if 2 applications are made in opposite directions.

Spot Treatments
USE INSTRUCTIONS: Apply a 1- to 1.5-percent solution Using hand-held spray equipment to control weeds within established vegetation before heading of grasses grown for seed. Hand-held equipment may also be used to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS, RESTRICTIONS: Apply this product before heading of grasses. The crop receiving the spray in the treated area will be killed. Avoid drift or spray outside the target area for the same reason.

Creating Rows in Annual Ryegrass
USE INSTRUCTIONS: Use 16 to 32 fl. oz. of this product per acre. Use the higher rate when the ryegrass is greater than 6 inches tall. For best results apply before the ryegrass reaches 6 inches tall.

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

Grower assumes all responsibility for crop losses from misapplication.

7.4 Pastures

Any grass (*Gramineae* family) except corn, sorghum, sugarcane and those listed above under "CEREAL CROPS", including Bahiagrass, Bermudagrass, Bluegrass, Bromegrass, Fescue, Guineagrass, Kikuya grass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

APPLICATION TYPES: Spot Treatment, Over-the-Top Wiper Application, Preplant, Preemergence, Pasture Renovation, Postemergent.

Spot Treatment, Over-the-Top Wiper Application
USE INSTRUCTIONS: This product may be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals.

PRECAUTIONS, RESTRICTIONS: For spot treatments or wiper application methods using rates of 3 quarts per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper application are made using rates above 3 quarts per acre, no more than 10 % of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

Preplant, Preemergence, Pasture Renovation, Stand Removal
USE INSTRUCTIONS: This product may be applied before planting or emergence of forage grasses. In addition, this product may be used to control perennial pasture species listed on this label before re-planting.

PRECAUTIONS, RESTRICTIONS: 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.

Postemergence Weed Control (Broadcast Treatments)

USE INSTRUCTIONS: This product may be applied to pastures to suppress competitive growth and seed production of annual weeds and undesirable vegetation. For selective applications with broadcast spray equipment, apply 12 to 16 fl. oz. of this product per acre in early spring before desirable perennial grasses break dormancy and begin green growth. Late fall applications can be made after perennial grasses have reached dormancy.

PRECAUTIONS, RESTRICTIONS: Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. Use of higher application rates will cause stand reductions. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 3 quarts per acre per year onto pasture grasses except for renovation use described above in this section. If replanting is needed due to severe stand reduction, wait at least 30 days after treatment before planting any crop not listed on this label.

Control of Annual Weeds in Coastal Bermudagrass Pastures Prior to Spring Growth or Immediately After First Cutting

This product may be applied at 16 fl. oz. per acre to control the weeds listed below and most other winter annual grass and broadleaf weeds in established coastal Bermudagrass pasture.

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

Application rates totaling 3 quarts per acre or less do not require a waiting period between treatment and feeding or livestock grazing.

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

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

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

7.5 Rangelands

APPLICATION TYPES: Postemergence.

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

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds. Delay grazing of treated areas to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

PRECAUTIONS, RESTRICTIONS: Do not use ammonium sulfate when spraying rangeland grasses with this product. Do not apply more than 3 quarts per acre per year. No waiting period between treatment and feeding or grazing livestock is required. Do not apply more than 3 quarts of this product per acre per year.

Postemergence

Apply 12 to 16 fl. oz. of this product to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most mature brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are possible, and best, in areas where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 16 fl. oz. of this product at the 3-leaf stage. Delaying applications beyond this stage will cause reduced or unacceptable control. Fire may be useful in eliminating the thatch layer produced by slow decaying culms before application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

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

8.0 ROUNDUP READY CROPS

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

UNITED PHOSPHORUS INC. RECOMMENDS USE OF THIS PRODUCT FOR POSTEMERGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY GENE OR GLYPHOSATE TOLERANT GENE. Applying this product to crop varieties that are not designated as Roundup Ready or glyphosate tolerant will result in severe crop injury and yield loss. Avoid contact

with foliage, green stems, or fruit of crops, or any desirable plants that do not contain the Roundup Ready gene, since severe injury or destruction will result.

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

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

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

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

For aerial applications, all labeled treatments may be made by aerial equipment where appropriate provided that the applicator complies with the precautions and restrictions on this product's labeling, in particular in the "Aerial Equipment" section. Apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

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

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

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers may cause reduced weed control or crop injury and are NOT ~~recommended~~ for over-the-top applications of this product unless otherwise noted in this product label, supplemental labeling or fact sheets published separately by United Phosphorus, Inc..

Unless otherwise directed, nonionic surfactant may be added to the spray solution for applications to Roundup Ready crops. The addition of certain surfactants to this product may cause some crop response including leaf necrosis, leaf chlorosis or leaf speckling. Read and follow all cautionary statements and other information appearing on the surfactant label.

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

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

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, a preplant burn-down treatment of this product is indicated to control existing weeds before crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morningglory, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. Make the second application after some regrowth has occurred and at least 10 days after a previous application of this product.

Rates of this product specified in the sections below, or in separate supplemental labeling published by UPI for this product supersede the general rates in the "ANNUAL WEEDS RATE SECTION" and the "PERENNIAL WEEDS RATE SECTION" of this label.

8.1 Alfalfa with the Roundup Ready Gene

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

GENERAL USE INSTRUCTIONS:

Annual Maximum Application Rates	
Combined total/year for all applications, including preplant during year of establishment	8 quarts/A
Total preplant, At-planting, and Preemergence applications	2 qarts/A
Combined total/year for in-crop applications for newly established and established stands	6 quarts/A

Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting alfalfa with a glyphosate tolerant gene, up to a maximum of 2 quarts per acre.

Postemergence (In-Crop)

USE INSTRUCTIONS: This product may be applied over the top of Roundup Ready alfalfa from emergence to 5 days before harvest. To maximize crop yield and quality, apply this product after weeds have emerged but before alfalfa growth or regrowth interferes with spray coverage of target weeds. In addition to the weeds listed in the "ANNUAL WEEDS RATE SECTION" and the "PERENNIAL WEEDS RATE SECTION", this product will suppress the parasitic weed Dodder (*Cuscuta spp.*) in Roundup Ready Alfalfa. Repeat applications may be needed for complete control.

Stand Establishment – Due to the biology and breeding constraints of alfalfa, up to 10% of the seedlings may not contain a Roundup Ready gene and will not survive the first application of this product. To eliminate the undesirable effects of stand gaps, a single application of this product should be applied at or before the 4-trifoliate growth stage. See the following tables for rate maximums.

STAND ESTABLISHMENT (Seeding Year) Application Rates	
Prior to First Cutting	
From emergence up to 4 trifoliate leaves	1 to 2 quarts/A
From 5 trifoliate leaves up to 5 days before first cutting	Up to 2 quarts/A
After First Cutting	
In-crop application, per cutting, up to 5 days before cutting	Up to 2 quarts/A

Established Stands – See table below for rate maximums.

ESTABLISHED STANDS Application Rates	
In-crop applications, per cutting, up to 5 days before cutting	Up to 2 quarts/A

PRECAUTIONS, RESTRICTIONS: Where Roundup Ready alfalfa is grown with a companion or cover crop, or is overseeded with a second species, in-crop (over-the-top) applications of this product will eliminate the non-glyphosate tolerant species. Any single in-crop application of this product must not exceed 2 quarts/A. Sequential applications must be at least 7 days apart. The combined total per year for all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) must not exceed 6 quarts/A. Remove domestic livestock before application. Wait at least 5 days after application before grazing, cutting, or feeding of forage or hay.

TANK MIXTURES: This product may be tank mixed with the products listed below. Ensure that the specific product used is labeled for application to alfalfa.

Newly Seeded Stands and Stand Establishment: Apply after weeds have emerged but before alfalfa growth or regrowth will interfere with spray coverage at up to 2 quarts per acre in a tank mixture with products containing the following active ingredients: 2,4-DB, bromoxynil, clethodim, imazamox, imazethapyr, sethoxydim.

Dormant Application and Winter Treatment: Apply in a tank mix only on a day when the temperature will remain above freezing. Tank mix with products containing: (For Dormant Application) diuron, hexazinone, imazamox, metribuzin, pronamide, terbacil; (for Winter Treatment): 2,4-DB, diuron, hexazinone.

Weed Control in Seed Production of Roundup Ready Alfalfa

APPLICATION TYPES: Over-the top, Spot Treatment, Postharvest.

Ground application – with broadcast equipment, apply this product in 3 to 40 gallons of spray solution per acre. Carefully slect proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

Air application – apply in 3 to 15 gallons of spray solution per acre.

Over-the-Top

Make broadcast applications using ground or aerial application equipment over the top of Roundup Ready alfalfa from emergence through the late vegetative stage. Do not make broadcast applications of this product between the initiation of alfalfa budding and the harvest of seed. No single over-the-top broadcast application should exceed 2 quarts per acre. Make sequential applications at least 7 days apart.

Due to the biology and breeding constraints of alfalfa, up to 10% of the seedlings may not contain a Roundup Ready gene and will not survive the first application of this product. Make single application of at least 1 quart per acre of this product at or before the 3-4 trifoliate growth stage to eliminate the effects of stand gaps.

Spot Treatment after Late Vegetative Stage

For late emerging weeds, apply this product as a spot treatment during the early bud stage through seed harvest. Applications made during this stage may cause reduced seed yield and quality and are the responsibility of the grower. Apply on a spray-to-wet basis. Do not spray to the point of runoff. If a spot treatment is made after the late vegetative stage, harvested seed must not be used for alfalfa sprout production.

Post-Harvest

Following harvest of Roundup Ready alfalfa seed, the stand may be managed for forage and hay production.

In addition to those weeds listed in this label, this product will suppress or control the parasitic weed, Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa seed production. Repeat applications may be necessary for complete control.

PRECAUTIONS, RESTRICTIONS: DO NOT APPLY MORE THAN 2 QUARTS OF THIS PRODUCT PER ACRE WHEN APPLYING BY AIR. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SPECIFIC INSTRUCTIONS IN SECTIONS ABOVE. Avoid drift. Extreme care must be used when applying this product to prevent injury to desirable plants and crops which do not contain a glyphosate tolerant gene.

8.2 Canola with the Roundup Ready Gene (Spring and Winter)

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

GENERAL PRECAUTIONS AND RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use of this product in Roundup Ready crops. See the "GENERAL INFORMATION" section of this label for more information on annual maximum application rates.

Annual Maximum Application Rates	
Preplant, At-planting, Preemergence	2 quarts per acre
Total in-crop application from emergence to 6-leaf stage	1 quarts per acre

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

Spring Canola

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

Preplant, At -Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting, up to a maximum of 2 quarts per acre..

Postemergence

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

Single Application - Apply 16 to 24 fl. oz. per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may cause temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 16 fl. oz. per acre are applied after the 4-leaf stage.

Sequential Application - Apply 16 fl. oz. per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are best for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass or when controlling weeds with multiple application times.

PRECAUTIONS, RESTRICTIONS: No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application may not exceed 32 fl. oz. per acre. Allow at least 60 days between last application and canola harvest.

Winter Canola

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

Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting, up to a maximum of 2 quarts per acre.

Postemergence (In-Crop)

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

Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered may require sequential applications of this product for control. The second application should be made after some regrowth has occurred and at least 60 days after a previous application of this product.

Single Application – Apply 24 to 32 fl. oz. of this product per acre in the fall when weeds are small and actively growing. Use the higher rate when weed densities are high, when weeds have overwintered or when weeds become large and well established. Applications of more than 16 fl. oz. per acre before the 6-leaf stage may cause reduced crop growth in the fall. Avoid spray overlaps, which may cause temporary yellowing and/or growth reduction.

Sequential applications – Apply 16 to 32 fl. oz. 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. Use sequential applications for early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass, and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds, sequential applications may be required in order to reduce competition with the crop.

PRECAUTIONS, RESTRICTIONS: No more than 2 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 64 fl. oz. of this product per acre. Applications of more than 24 fl. oz. per acre before the 6-leaf stage may cause reduced crop growth in the fall. Allow at least 60 days between last application and harvest of canola grain. No waiting period is required between application and open grazing of livestock.

Weed control in Wildlife Food Plots of Roundup Ready Canola

This product may be used as a site preparation treatment before planting, before emergence and/or postemergence with over-the-top applications in Roundup Ready canola planted for wildlife food plots.

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

For aerial applications, apply this product in 3 to 15 gallons of water per acre.

Preplant or Preemergent Applications – this product may be applied by aerial or ground equipment before planting or emergence of Roundup Ready canola in wildlife food plots. The maximum combined application rate from all preplant and pre-emergent applications should not exceed 2 quarts per acre per season.

NOTE: always use a burndown treatment to control existing weeds before canola emerges. Apply a preplant Burndown treatment of 0.5 to 1 quart per acre of this product. If tillage is needed to prepare a seedbed wait 7 days after application before tillage.

Over-the-Top Applications – Apply by air or ground, postemergence, to Roundup Ready canola planted in wildlife food plots, through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss.

Single Application - Apply 16 to 24 fl. oz. per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may cause temporary yellowing, delayed flowering, and or growth reduction.

Sequential Application - Apply 16 fl. oz. per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are best for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass.

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application may not exceed 2 quarts per acre. Do not process treated Roundup Ready canola seed from wildlife food plots for food or domestic livestock feed. Do not graze or feed treated Roundup Ready canola to domestic livestock. There are no rotational restrictions for planting any wildlife food species or for allowing native species to repopulate the area following applications of this product.

Seed Production of Canola with the Roundup Ready Gene

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

ROUNDUP READY CANOLA VARIETIES MUST BE PURCHASED FROM AN AUTHORIZED LICENSED SEED SUPPLIER. THE DESIGNATION, "ROUNDUP READY," INDICATES THE CANOLA VARIETY CONTAINS A PATENTED PROPRIETARY TRAIT. IT IS UNLAWFUL TO SELL OR PLANT SAVED SEED.

CANOLA WITH THE ROUNDUP READY GENE MAY ONLY BE USED FOR PLANTING A COMMERCIAL CROP IN A SINGLE SEASON. SEED MAY NOT BE SAVED FOR REPLANTING AND SAVED SEED MAY NOT BE SUPPLIED TO OTHERS FOR REPLANTING. UPI, INC. DOES NOT WARRANT THE SAFETY OR PERFORMANCE OF THIS PRODUCT WHEN USED ON "BROWN BAG" OR FARMER-SAVED SEED.

USE INSTRUCTIONS: This product will control non-glyphosate tolerant canola in seed production fields of canola containing the Roundup Ready® gene. This product may be applied using ground spray equipment only. Apply 1 pint of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. A second application of 1 pint per acre may be applied, if needed to control non-glyphosate tolerant canola plants.
DO NOT EXCEED A MAXIMUM RATE OF 1 QUART OF THIS PRODUCT PER ACRE PER SEASON.

Application timing — this product can be applied to Roundup Ready canola from emergence to the pre-flower (early bolting) stage.

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

8.3 Roundup Ready Corn 2

APPLICATION TYPES: Preplant, At-Planting, Preemergence, Postemergence (In-Crop), Spot Treatment, Preharvest, Post-Harvest.

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications	8 quarts per acre
Preplant, At-planting, Preemergence applications	5 quarts per acre
Total in-crop applications from emergence through 48 inches	2 quarts per acre
Maximum preharvest application	1 quart per acre

Preplant, At-Planting, Preemergence

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

TANK MIXTURES: This product may be tank mixed with products containing the following active ingredients: 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. Red and follow all label directions for products used in tank mixtures. Apply in 10- to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

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

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

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. Make the postemergent application of 24 to 32 fl. oz. per acre of this product before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inch tall weeds or less.

This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 24 to 32 fl. oz. per acre will control the labeled grasses and broadleaf weeds.

For Roundup Ready corn from emergence through the V8 state (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first, this product may be applied over-the-top broadcast or with drop nozzles. When corn height is 24 to 30 inches (free standing), for optimum spray coverage and weed control drop nozzles are recommended. For corn heights 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles adjusted to avoid spraying into the whorls of the corn plants.

TANK MIXTURES: This product may be applied in tank mixture with other products registered for postemergence use on corn. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines – the more restrictive requirements apply.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product under hard water conditions, drought conditions, or in some tank mix situations.

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

Preharvest
USE INSTRUCTIONS: A single preharvest application of up to 1 quart per acre of this product can be applied preharvest. Apply at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).

PRECAUTIONS, RESTRICTIONS: Do not make a preharvest application of this product if more than a combined total of 64 fl. oz. of this product has been previously applied in over-the-top or drop nozzle applications. Allow at least 7 days between application and harvest, feeding, or grazing.

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

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

8.4 Cotton with the Roundup Ready Gene
APPLICATION TYPES: Preplant, At-Planting, Preemergence, Postemergence (Over-the-Top), Selective Equipment, Preharvest.

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications	8 quarts per acre
Preplant, At-planting, Preemergence applications	5 quarts per acre
Total in-crop applications from ground cracking to layby	4 quarts per acre
Maximum preharvest application rate	2 quarts per acre
Combined total in-crop application from emergence through harvest	6 quarts per acre

GENERAL PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. ALLOW AT LEAST 7 DAYS BETWEEN APPLICATION AND HARVEST. Do not make more than 2 over-the-top broadcast applications from crop emergence through the 4-leaf (node) state of development. Do not make more than 2 applications from the 5-leaf stage through layby. Sequential over-the-top or post directed applications of this product in-crop must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications. 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 applications to Roundup Ready cotton.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied alone or as a tank mix before, during or after planting cotton.

TANK MIXTURES: This product may be tank mixed with 2,4-D and dicamba and applied before planting only. It may be tank mixed with products containing the following ingredients and applied before crop emergence: diuron, fluometruron, metolachlor, s-metolachlor, pendimethalin, prometym, pyrithiobac-sodium.

Postemergence (Over-the-Top)
USE INSTRUCTIONS: This product may be applied by aerial or ground application equipment at rates up to 1 quart per acre per application postemergence to Roundup Ready cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the 4-leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss.

TANK MIXTURES: This product may be tank mixed with products containing the following ingredients, provided that the tank mix partner is registered for this use: clethodim, fluazifop-P-butyl, metolachlor, s-metolachlor, pyrithiobac-sodium, sethoxydim, quizalofop-P-ethyl. Note: pyrithiobac-sodium may cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop). S-metolachlor and metolachlor applied over the top may cause leaf injury in the form of necrotic spotting to exposed cotton leaves.

PRECAUTIONS, RESTRICTIONS: The addition of surfactant to the spray solution may result in crop injury and reduced yield and is not ~~recommended~~ for over-the-top applications of this product to Roundup Ready cotton.

Salvage Treatment

This treatment may be used after the 4-leaf stage of development; only use it where weeds threaten to cause the loss of the crop. One quart per acre may be applied either as an over-the-top applications or as a post-directed treatments sprayed higher on the cotton plants and over the weeds. **NOTE**: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. DO NOT MAKE MORE THAN ONE SALVAGE TREATMENT PER GROWING SEASON.

Selective Equipment
USE INSTRUCTIONS: This product may be applied using precision post-directed or hooded sprayers at rates up to 1 quart per acre per application to Roundup Ready cotton through layby. At this stage, use post-directed equipment which directs the spray to the base of the cotton plants. Avoid contact of the spray with cotton leaves to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 psi). For best results, make applications while weeds are small (less than 3 inches).

TANK MIXTURES: This product may be tank mixed with products containing following ingredients for in-crop application using precision post-directed or hooded sprayers: carfentrazone-ethyl, diuron, flumioxazin, fluometuron, linuron, pendimethalin, prometry, pyrithiobac-sodium. Pyrithiobac-sodium may cause leaf yellowing and/or leaf crinkling when applied postemergence.

PRECAUTIONS, RESTRICTIONS: See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment. Sequential over-the-top or post-directed applications of this product in-crop must be at least 10 days apart and cotton must have at least 2 nodes of incremental growth between applications.

Preharvest
USE INSTRUCTIONS: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20 % boll crack. Up to 2 quarts of this product may be applied using either aerial or ground spray equipment. TANK MIXTURES: This product may be tank mixed products containing tribufos, ethephon, and diuron plus thidiazuron.. NOTE: This product will not enhance the performance of these harvest aids when applied to Roundup Ready cotton.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest of cotton. Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES. OTHER THAN THOSE LISTED ON THIS LABEL, FOR PREHARVEST APPLICATION OF THIS PRODUCT TO ROUNDUP READY COTTON IS PROHIBITED.

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

Roundup Ready Flex Cotton Lines

The use of over-the-top applications described in this section on *other* than Roundup Ready Flex cotton will cause crop injury and reduced yields. Drift of this product from applications made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton may cause extensive injury including boll loss, delayed maturity and/or yield loss

Note: the instructions provided in this section are specific to, and may only be used with, varieties designated as Roundup Ready *Flex* cotton. Do not combine the instructions in this section with any other roundup Ready cotton or Roundup Ready Flex cotton instructions on labeling for this or other glyphosate-containing product.

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

Maximum Allowable Yearly Rates

Combined total per year for all applications	8 quarts per acre
Preplant, At-Planting Preemergence applications	5 quarts per acre
Total in-crop applications from cracking to 60% open bolls	6 quarts per acre
Maximum allowed from 60% bolls open to 7 days before harvest	2 quarts per acre
Combined total in-crop application from emergence through harvest	6 quarts per acre

Preplant, At-Planting, Preemergence

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

TANK MIXTURES: This product may be tank-mixed with 2,4-D or dicamba and applied before planting only. This product may be tank mixed with the products containing the following ingredients and applied before crop emergence: diuron, fluometruon, metolachlor, s-metolachlor, pendimethalin, prometryn, pyrithiobac-sodium.

Postemergence (In-Crop)

USE INSTRUCTIONS: To maximize yield potential, spray cotton early to eliminate competing weeds. In general, make an initial application of 1 quart per acre on 1 to 3 inch tall annual grass and broadleaf weeds. This product may be applied postemergence at rates up to 1.5 quarts per acre per application. In addition to broadcast applications, post-directed spray equipment may be used to achieve weed coverage.

TANK MIXTURES: This product may be tank mixed with products containing the following ingredients and applied postemergence (in-crop): clethodim, fluazifop-P-butyl, metolachlor, s-metolachlor, pyrithiobac-sodium, quizalofop-p-ethyl, sethoxydim. Pyrithiobac-sodium may cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop). S-metolachlor and metolachlor applied over the top of Roundup Ready cotton may cause leaf injury in the form of necrotic spotting to exposed cotton leaves.

PRECAUTIONS, RESTRICTIONS: The maximum rate for any single in-crop application is 1.5 quarts per acre made using ground application equipment. In-crop applications above 1 quart per acre made alone or with the addition of other crop chemical products containing surfactant may cause a crop response including leaf speckling or leaf necrosis. Do not apply more than 1 quart per acre when applying by air. Between layby and 60% open bolls, do not apply more than a total of 2 quarts per acre. Do not add additional surfactant or additives containing surfactant to this product for over-the-top applications to Roundup Ready Flex cotton.

Preharvest

USE INSTRUCTIONS: Apply up to 2 quarts of this product as a broadcast treatment before harvest after 60% boll crack. Note: this product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.

PRECAUTIONS, RESTRICTIONS: All at least 7 days between application and harvest. Do not apply preharvest to cotton grown for seed, as a reduction in germination or vigor may occur.

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

Roundup Ready Cotton for Application in the State of Arizona Only

These instructions are specific to, and should only be used with varieties designated as Roundup Ready *Flex* cotton.

APPLICATION TYPES: Preplant, At-Planting, Preemergence, Postemergence (Over-the-Top), Preharvest.

Maximum Allowable Yearly Rates

Combined total per year for all applications	8 quarts per acre
Preplant, At-Planting, Preemergence applications	5 quarts per acre
Total in-crop applications from ground cracking to 60% open bolls	6 quarts per acre

Maximum allowed from 60% open bolls to 7 days before harvest	2 fl. oz. per acre

Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: Apply before, during, or after planting Roundup Ready Flex cotton.

Postemergence (In-Crop)

USE INSTRUCTIONS: Make an initial application of 1 quart per acre on 1 to 3 inch tall annual grass and broadleaf weeds. This product may be applied by ground at 2 quarts per acre per application postemergence to Roundup Ready Flex cotton. In addition to broadcast applications, post-directed equipment may be used to achieve weed coverage.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 2 quarts per acre for any single in-crop application with ground equipment. In-crop rates above 1 quart made alone, or with the addition of other crop chemical product containing surfactant, may cause a crop response, including leaf speckling or leaf necrosis. Do not apply more than 3 pints per acre when applying by air.

Preharvest

USE INSTRUCTIONS: Apply as a broadcast treatment after 60% boll crack. Up to 2 quarts may be applied using either aerial or ground spray equipment. Note: this product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest of Roundup Ready Flex cotton. Do not apply over-the-top beyond first bloom to cotton grown for seed.

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON. 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 ACCORDING TO LABEL INSTRUCTIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

Preplant, At-Planting, Preemergence

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

Postemergence (Over-the-Top)

USE INSTRUCTIONS: This product may be applied by aerial or ground application equipment at rates up to 1 quart per acre per application postemergence to Roundup Ready cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Unless otherwise directed in these supplemental directions, any single over-the-top broadcast application should not exceed 1 quart per acre. Combined over-the-top applications between ground cracking until the 4-leaf stage may not exceed 3 quarts per acre.

NOTE: For specific rates of application and instructions, refer to the "ANNUAL AND PERENNIAL WEEDS RATE TALBES" in the label for this product.

Selective Equipment

USE INSTRUCTIONS: This product may be applied in-crop using precision post-directed or hooded sprayers to Roundup Ready cotton through layby. Unless otherwise directed in these supplemental directions, any single application using selective equipment may not exceed 1 quart per acre. Sequential in-crop applications using selective equipment may be made up to a maximum of 2 quarts per acre.

At this stage, use post-directed equipment which directs the spray to the base of the cotton plants. To the extent possible, do not allow the spray to contact the cotton leaves. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30psi). For best results, apply when weeds are small (less than 3 inches).

PRECAUTIONS, RESTRICTIONS: See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment. The combined total of in-crop over-the-top plus selective equipment applications must not exceed 4 quarts per acre.

Salvage Treatment

USE INSTRUCTIONS: From the ground cracking stage through layby, where weeds threaten to cause the loss of the crop, applications of up to 1.5 quarts per acre may be applied either as an over-the-top application or as a post-directed treatment sprayed higher on the cotton plants and over the weeks. NOTE: CROP TOLERANCE OF ROUNDUP READY COTTON HAS NOT BEEN FULLY TESTED AT THIS APPLICATION RATE. SALVAGE TREATMENTS ARE EXPECTED TO RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY

AND/OR YIELD LOSS AND ARE THE SOLE RESPONSIBILITY OF THE GROWER. NO MORE THAN TWO SALVAGE TREATMENTS SHOULD BE USED PER GROWING SEASON.

PRECAUTIONS, RESTRICTIONS: The combined total of in-crop over-the-top plus selective equipment applications must not exceed 4 quarts per acre.

Preharvest

USE INSTRUCTIONS: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20 % boll crack. Up to 2 quarts per acre of this product may be applied using either aerial or ground spray equipment. NOTE: this product will not enhance the performance of harvest aids when applied to Roundup Ready cotton.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest of cotton. Do not apply this product to Roundup Ready cotton grown for seed.

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

8.5 Soybeans with the Roundup Ready Gene

APPLICATION TYPES: Preplant, At-planting, Preemergence, Postemergence (In-Crop), Preharvest, Post-Harvest.

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications	8 quarts per acre
Preplant, At-planting, Preemergence applications	5 quarts per acre
Total in-crop applications from cracking throughout flowering	3 quarts per acre
Maximum preharvest application rate	1 quart per acre

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

Preplant, At-Planting, Preemergence

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

TANK MIXTURES: This product may be tank mixed with products containing 2,4-D, Banvel, or Clarity and applied before planting only. This product may be tank mixed with products containing the following ingredients and applied before crop emergence: alachlor, atrazine, carfentrazone-ethyl, chlorimuron ethyl, clethodim, clomazone, cloransulam-methyl, dimethenamid, dimethenamid-p, fenoxyprop, fluazifob-p-butyl, flufenacet, flumetsulam, flumiclorac pentyl ester, flumioxazin, fomesafen, imazaquin, imazethapyr, lactofen, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, sulfentrazone, tribenuron methyl, quizalofop P-ethyl.

Postemergence (In-Crop)

USE INSTRUCTIONS: When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Applications of this product can be made in Roundup Ready soybeans from emergence (cracking) throughout flowering. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for rates for specific annual weeds. In general, make an initial application of 1 quart per acre on 2 to 8-inch tall weeds. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 2 quarts per acre in any single in-crop application for control of annual weeds and where heavy weed densities exist.

A 1- to 2-quarts per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: Bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, 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 spraying with this product.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP. To control giant ragweed, apply 1 quart per acre of this product 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 products containing the following ingredients, and applied postemergence (in-crop) over the top of Roundup Ready soybeans: acifluorfen, bentazonchlorimuron ethyl, clothodim, imazethapyr, cloransulam-methyl, fenoxyprop,

fluazifop-p-butyl, flumiclorac pentyl ester, fomesafen, imazamox, imazethapyr, lactofen, pendimethalin, quizalofop P-ethyl, sethoxydem, thifensulfuron-methyl.

NOTE: The use of this product for in-crop applications over Roundup Ready soybeans is not registered in California.

PRECAUTIONS, RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 3 quarts per acre. The maximum rate for any single in-crop application is 2 quarts per acre. The maximum combined total of this product that can be applied during flowering is 2 quarts per acre.

Preharvest
USE INSTRUCTIONS: This product provides weed control when applied before harvest of soybeans. Up to 1 quart per acre of this product can be applied by aerial or ground application.

PRECAUTIONS, RESTRICTIONS: Avoid excessive seed shatter loss due to ground application equipment. Allow at least 14 days between final application and harvest of soybean grain or feeding of soybean grain, forage or hay.

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

8.6 Sugar Beets with the Roundup Ready Gene

APPLICATION TYPES: Preplant, At-Planting, Preemergence, Postemergence (In-Crop).

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications	8 quarts per acre
Preplant, At-planting, Preemergence applications	5 quarts per acre
Emergence to 8-leaf stage	2.5 quarts per acre
Between 8-leaf stage and canopy closure	2 quarts per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. The combined total application from crop emergence through harvest must not exceed 4.5 quarts per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 1.5 quarts per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 1 quart per acre. Allow at least 30 days between last application and sugar beet harvest.

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

TANK MIXTURES: This product may be tank mixed with products containing the following ingredients and applied before crop emergence: dimethenamid, s-metolachlor.

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

TANK MIXTURES: This product may be tank mixed with products containing the following ingredients and applied postemergence (in-crop) over the top: clethodim, clopyralid, desmedipham, ethofumesate, phenmedipham, quizalofop-p-ethyl, sethoxydim, trisulfuron-methyl.

9.0 NON-CROP USES AROUND THE FARMSTEAD

APPLICATION TYPES: General Non-Selective Weed Control, Trim-and-Edge, Greenhouse/Shadehouse, Chemical Mowing, Cut Stumps, Habitat Management.

9.1 General Weed Control, Trim-And-Edge

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

TANK MIXTURES: This product may be tank mixed with products labeled for this use.. Refer to these product labels for approved farmstead sites and application rates. For annual weeds, use 1 quart per acre of this product when weeds are less than 6 inches tall, 1.5 quarts per acre when weeds are 6 to 12 inches tall and 2 quarts per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 2 to 5 quarts

per acre in these tank mixes. For tank mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the "ANNUAL WEEDS – HAND-HELD OR HIGH VOLUME EQUIPMENT" section of this label for rates.

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

9.2 Greenhouse/Shadehouse

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

9.3 Chemical Mowing

USE INSTRUCTIONS: This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6 fl. oz. of this product per acre when treating Kentucky bluegrass. Use 8 fl. oz. of this product per acre when treating tall fescue, fine fescue, orchard-grass, bahiagrass or quackgrass covers. Use 16 fl. oz. of this product per acre when treating Bermudagrass. Use 64 fl. oz. of this product per acre when treating torpedograss or paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

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

9.4 Cut Stumps

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

USE INSTRUCTIONS: This product will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, apply during periods of active growth and full leaf expansion

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

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

9.5 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. Applications can be made to allow recovery of native plant species, before planting desirable native species, and for similar broad spectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement.

Wildlife Food Plots

USE INSTRUCTIONS: This product may be used as a site preparation treatment to control annual and perennial weeds before 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.

10.0 ANNUAL WEEDS RATE TABLE
(Alphabetically by Species)

When water carrier volumes are between 3 and 15 gallons per acre for ground applications and between 3 and 5 gallons per acre for aerial applications, use the rates specified for individual weeds as follows in the "ANNUAL WEEDS RATE TABLE".

When water carrier volumes are between 16 and 40 gallons per acre by ground and between 6 and 15 gallons by air, the following rates will control the annual weeds listed in the table:

Rate	Grass and broadleaf annual weeds size	Vine size
1 quart per acre	Less than 6 inches in height or circumference	Less than 3 inches in length

3 pints per acre	6-12 inches in height or circumference	3-6 inches in length
2 quarts per acre	Greater than 12 inches in height or circumference	Greater than 6 inches in length

Apply to actively growing annual weeds. Annual weeds are generally easiest to control when they are small. Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements. Do not tank mix with soil residual herbicides when using these rates unless otherwise specified. For weeds that have been mowed, grazed or cut, allow regrowth to occur before treatment. This product may be used up to 64 fl. oz. per acre where heavy weed densities exist.

ANNUAL WEEDS RATE TABLE

	RATE (fl. oz. per acre)				
	16	24	32	40	48
WEED SPECIES	Maximum height/length (in inches)				
Ammannia, purple	3	6	12	–	18
Annoda, spurred	–	2	3	5	8
Barley	18	18 +	–	–	–
Barnyardgrass	–	3	6	7	9
Bassia, fivehook	–	–	6	–	–
Beggarweed, Florida	–	5	8	–	–
Bittercress	12	20	–	–	–
Bluegrass, annual	10	–	–	–	–
Bluegrass, bulbous	6	–	–	–	–
Brome, downy[1,2]	6	12	–	–	–
Brome, Japanese	6	12	24	–	–
Browntop panicum	6	8	12	–	24
Buckwheat, wild[3]	–	1	2	–	–
Burcucumber	–	6	12	–	18
Buttercup	12	20	–	–	–
Carolina geranium	–	–	4	–	9
Carpetweed	–	6	12	–	–
Cheat[2]	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	–	–
Dwarfdandelion	12	–	–	–	–
Eastern mannagrass	8	12	–	–	–
Eclipta	–	4	8	12	–
Fall panicum	4	–	6	–	12
Falsedandelion	–	20	–	–	–
Falseflax, smallseed	12	–	–	–	–
Fiddleneck	–	6	12	–	–
Field pennycress	6	12	–	–	–
Filaree	–	–	6	–	12
Fleabane, annual	6	20	–	–	–
Fleabane, hairy (*Conyza bonariensis*)	–	–	6	–	10
Fleabane, rough	3	6	12	–	–

WEED SPECIES	RATE (fl. oz. per acre)				
	16	24	32	40	48
	Maximum height/length (in inches)				
Florida pusley	–	–	4	–	6
Foxtail, giant, bristly, yellow	6	12	20	–	–
Foxtail, Carolina	10	–	–	–	–
Foxtail, green	12	–	–	–	–
Goatgrass, jointed	6	12	–	–	–
Goosegrass	–	3	6	–	12
Grain sorghum (milo)	6	12	20	–	–
Groundcherry	–	3	6	–	9
Groundsel, common	–	6	10	–	–
Hemp sesbania	–	2	4	6	8
Henbit	–	–	6	–	12
Horseweed/ Marestail (*Conyza canadensis*)	–	6	12	–	18
Itchgrass	6	8	12	–	18
Jimsonweed	–	–	12	–	18
Johnsongrass, seedling	6	12	18	–	24
Junglerice	–	3	6	7	9
Knotweed	–	–	6	–	12
Kochia[4]	–	3 to 6	12	–	–
Lambsquarters	–	6	12	–	20
Little barley	6	12	–	–	–
London rocket	6	–	24	–	–
Mayweed	–	2	6	12	18
Morningglory, annual (*Ipomoea* spp)	–	–	3	–	6
Mustard, blue	6	12	18	–	–
Mustard, tansy	6	12	18	–	–
Mustard, tumble	6	12	18	–	–
Mustard, wild	6	12	18	–	–
Nightshade, black	–	4	6	–	12
Nightshade, hairy	–	4	6	–	12
Oats	3	6	18	–	–
Pigweed species	–	12	18	24	–
Prickly lettuce	–	6	12	–	–
Purslane	–	–	3	–	6
Ragweed, common	–	6	12	–	18
Ragweed, giant	–	6	12	–	18
Red rice	–	–	4	–	–
Rye, volunteer/cereal[2]	6	18	18 +	–	–
Ryegrass	–	–	6	–	12
Sandbur, field	6	12	–	–	–
Sandbur, longspine	6	12	–	–	–
Shattercane	6	12	20	–	–
Shepherd's-purse	6	12	–	–	–
Sicklepod	–	2	4	–	8

WEED SPECIES	RATE (fl. oz. per acre) 16	24	32	40	48
	Maximum height/length (in inches)				
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	–	–
Spurge, prostrate	–	6	12	–	–
Spurge, spotted	–	6	12	–	–
Spurry, umbrella	6	–	–	–	–
Stinkgrass	–	12	–	–	–
Sunflower	12	18	–	–	–
Swinecress	–	5	12	–	–
Teaweed/ Prickly sida	–	2	4	–	6
Texas panicum	6	8	12	–	24
Thistle, Russian[5]	–	6	12	–	–
Velvetleaf	–	–	6	–	12
Virginia pepperweed	–	18	–	–	–
Waterhemp	–	–	6	–	12
Wheat[2]	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	–	–

[1] For control of downy brome in no-till systems, use 24 fl. oz. per acre.

[2] Performance is better if application is made before this weed reaches the boot stage of growth.

[3] Use 24 fl. oz. per acre of this product to control wild buckwheat in the cotyledon to 2-leaf stage. Use 32 fl. oz. per acre to control 2- to 4-leaf wild buckwheat. For improved control of wild buckwheat over 2 inches in size, use sequential treatments of 32 fl. oz. followed by 32 fl. oz. of this product per acre.

[4] Do not treat kochia in the button stage.

[5] Control of Russian thistle may vary based on environmental conditions and spray coverage. Whenever possible, a tank mixture with 2,4-D as described below may improve control.

10.1 Annual Weeds – Tank Mixtures with 2,4-D, Dicamba or Picloram

12 to 16 fl. oz. of this product plus 0.25 pound of dicamba or 0.5 pound of 2,4-D or 1 to 2 fl. oz. of picloram per acre will control the following weeds with the maximum height or length indicated: 6 inches – prickly lettuce, marestail/horseweed, morning glory, kochia (dicamba only) wild buckwheat (picloram only); 12 inches – cocklebur, lambsquarters, pigweed, Russian thistle (2,4-D only).

16 fl. oz. of this product plus 0.5 pound of 2,4-D per acre, will control the following weeds when they are a maximum height or length of 6 inches: common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf. Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Ensure that the specific product is registered for application at the desired site. Some crop injury may occur if dicamba or picloram is applied within 45 days of planting.

DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.

10.2 Annual Weeds – Hand-Held or Backpack Equipment

For control of weeds listed in the "ANNUAL WEEDS RATE TABLES", apply a 0.5 % solution of this product to weeds less than 6 inches in height or runner length. Apply before seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1 % solution.

For best results, use a 2 % solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle. When using application methods that result in less than complete coverage, use a 5 % solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

10.3 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. 24 to 28 fl. oz. of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 28 ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 1/8 pound of dicamba for control).

11.0 PERENNIAL WEEDS RATE TABLE (Alphabetically by Species)

Apply to actively growing perennial weeds. NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the specified stages. Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made before crop emergence. Unless otherwise stated, allow 7 or more days after application before tillage. Best results are obtained when soil moisture is adequate for active weed growth.

Weed Species	Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Alfalfa	**1 – 2**	**3 – 10**	**2%**
Apply after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more before treatment. Follow applications with deep tillage at least 7 days after treatment, but before soil freeze-up.			
Alligatorweed	**4**	**3 – 20**	**1.5%**
Partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain control.			
Anise (fennel)	**—**	**—**	**1 - 2%**
For hand-held, apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.			
Bahiagrass	**3 – 5**	**3 – 20**	**2%**
Apply when most plants have reached the early head stage.			
Bentgrass	**1.5**	**10 – 20**	**2%**
For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth before a fall application. Bentgrass should have at least 3 inches of growth. Avoid tillage before treatment. Tillage 7 to 10 days after application will give best results.			
Bermudagrass	**3 – 5**	**3 – 20**	**2%**
For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control.			
Bermudagrass, water (knotgrass)	**1 – 1.5**	**5 – 10**	**2%**
Apply 1.5 quarts of this product in 5 to 10 gallons of water per acre. Apply when water Bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field. Fall applications only: Apply 1 quart of this product in 5 to 10 gallons of water per acre. Till fallow fields before application. Apply before frost on water Bermudagrass that is 12 to 18 inches in length. This product is not registered in California for use on water Bermudagrass.			

Weed Species	Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Bindweed, field	0.5 – 5	3 – 20	2%
Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Also for control, apply 2 quarts of this product plus 0.5 pound of dicamba in 10 to 20 gallons of water per acre. Do not apply by air. For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Apply following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth. For suppression, apply 16 fl. oz. of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tillage systems only. Delay applications until maximum emergence has occurred and when vines are between 6 to 18 inches in length. In California only, apply 1 to 5 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 1 quart of this product in 3 to 10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.			
Bluegrass, Kentucky	1 – 2	3 – 40	2%
Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches tall.			
Blueweed, Texas	3 – 5	3 – 40	2%
Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.			
Brackenfern	3 – 4	3 – 40	1 - 1.5%
Apply to fully expanded fronds that are at least 18 inches long.			
Bromegrass, smooth	1 – 2	3 – 40	2%
Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches tall.			
Bursage, woolly-leaf	—	3 – 20	2%
For control, apply 2 quarts of this product plus 1/2 pound of dicamba per acre. For partial control, apply 1 quart of this product plus 0.5 pound of dicamba per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.			
Canarygrass, reed	2 – 3	3 – 40	2%
For best results, apply when most plants have reached the boot-to-head stage of growth.			
Cattail	3 – 5	3 – 40	2%
Apply when most plants have reached the early head stage.			
Clover; red or white	3 – 5	3 – 20	2%
Apply when most plants have reached the early bud stage. Also for control, apply 16 to 32 fl. oz. of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre.			
Cogongrass	3 – 5	10 – 40	2%
Apply when cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.			
Dallisgrass	3 – 5	3 – 20	2%
Apply when most plants have reached the early head stage.			
Dandelion	3 – 5	3 – 40	2%
Apply when most plants have reached the early bud stage of growth. Also for control, apply 16 fl. oz. of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre.			
Dock, curly	3 – 5	3 – 40	2%
Apply when most plants have reached the early bud stage of growth. Also for control, apply 16 to 32 fl. oz. of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre.			

Weed Species	Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Dogbane, hemp	4	3 – 40	2%
Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage before treatment. For best results, apply in late summer or fall. For suppression, apply 16 fl. oz. of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.			
Fescue (except tall)	3 – 5	3 – 20	2%
Apply when most plants have reached the early head stage.			
Fescue, tall	1 – 3	3 – 40	2%
Apply 3 quarts of this product per acre when most plants have reached boot-to-early seedhead stage of development. Fall applications only: Apply 1 quart of this product in 3 to 10 gallons of water per acre. Apply to fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 1 pint per acre of this product will improve long-term control and control seedlings germinating after fall treatments or the following spring.			
Guineagrass	2 – 3	3 – 40	1%
Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. In Texas and ridge of Florida, use 2 quarts for control. In the flatwoods region of Florida, 3 quarts is required for control.			
Horsenettle	3 – 5	3 – 20	2%
Apply when most plants have reached the early bud stage.			
Horseradish	4	3 – 40	2%
Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.			
Iceplant	—	—	1.5 - 2%
Iceplant should be at or beyond the early bud stage of growth. Thorough coverage is necessary for best control.			
Jerusalem artichoke	3 – 5	3 – 20	2%
Apply when most plants are in the early bud stage.			
Johnsongrass	0.5 – 3	3 – 40	1%
In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage is not practiced (no-till), apply 2 to 3 quarts 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 before frost. Allow 7 or more days after application before tillage. Do not tank mix with residual herbicides when using 1 quart of this product per acre. For burndown of Johnsongrass, apply 1 pint of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage. Spot treatment (partial control or suppression) – Apply a 1 % solution of this product when Johnsongrass is 12 to 18 inches tall. Ensure that coverage is uniform and complete.			
Kikuyugrass	2 – 3	3 – 40	2%
Spray when most kikuyugrass is at least 8 inches tall (3- or 4-leaf stage of growth). Allow 3 or more days after application before tillage.			
Knapweed	4	3 – 40	2%
Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.			
Lantana	—	—	1 - 1.25%
Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.			
Lespedeza	3 – 5	3 – 20	2%
Apply when most plants have reached the early bud stage.			
Milkweed, common	3	3 – 40	2%
Apply when most plants have reached the late bud to flower stage of growth.			
Muhly, wirestem	1 – 2	3 – 40	2%
Use 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or non-crop areas. Spray when the wirestem muhly is 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring before spring applications. Allow 3 or more days after application before tillage.			
Mullein, common	3 – 5	3 – 20	2%
Apply when most plants are in the early bud stage.			
Napiergrass	3 – 5	3 – 20	2%
Apply when most plants are in the early head stage.			
Nightshade, silverleaf	2	3 – 10	2%
Apply when at least 60 % of the plants have berries. Fall treatments must be applied before a killing frost.			

Weed Species	Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Nutsedge, purple or yellow	**0.5 – 3**	**3 – 40**	**1 - 2%**
Apply 3 quarts of this product per acre or apply a 1 to 2 percent solution for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets that have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.			
Sequential applications: 1 to 2 quarts of this product in 3 to 10 gallons of water per acre will also provide control. Apply when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.			
For partial control of existing plants, apply 1 pint to 2 quarts of this product in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.			
Orchardgrass	**1 – 2**	**3 – 40**	**2%**
Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches tall.			
Orchardgrass sods going to no-till corn: Apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to orchardgrass that is at least 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.			
Pampasgrass	**—**	**—**	**1.5 - 2%**
Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.			
Paragrass	**3 – 5**	**3 – 20**	**2%**
Apply when most plants are in the early head stage.			
Phragmites	**3 – 5**	**10 – 40**	**1 - 2%**
For partial control and for best results, treat during late summer or fall when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.			
Poison hemlock	**—**	**—**	**1 - 2%**
Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.			
Pokeweed, common	**1**	**3 – 40**	**2%**
Apply to actively growing plants up to 24 inches tall.			
Quackgrass	**1 – 3**	**3 – 40**	**2%**
In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1 quart of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 2 quarts of this product. Do not tank mix with residual herbicides when using the 1-quart rate. Spray when quackgrass is 6 to 8 inches tall. Do not till between harvest and fall applications or in fall or spring before spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results.			
In pastures, sods or non-crop areas where deep tillage does not follow application: Apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.			
Redvine	**0.75 – 2**	**5 – 10**	**2%**
For suppression, apply 24 fl. oz. of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply specified rates in 5 to 10 gallons of water per acre. Apply in late September or early October to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Apply at least 1 week before a killing frost.			
Reed, giant	**—**	**—**	**2%**
For best results apply in late summer to fall.			
Ryegrass, perennial	**1 – 3**	**3 – 40**	**1%**
In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage is not practiced (no-till), apply 2 to 3 quarts 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 before frost. Do not tank-mix with residual herbicides when using 1 quart of this product per acre.			
Smartweed, swamp	**3 – 5**	**3 – 40**	**2%**
Apply when most plants have reached the early bud stage of growth. Also for control, apply 16 fl. oz. of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall.			

Weed Species	Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Sowthistle, perennial	2 – 3	3 – 40	2%
Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development before the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.			
Spurge, leafy	—	3 – 10	2%
For suppression, apply 16 fl. oz. of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall. If mowing has occurred before treatment, apply when most of the plants are 12 inches tall.			
Starthistle, yellow	2	10 – 40	2%
For best results apply during the rosette, bolting and early flower stages.			
Sweet potato, wild	—	—	2%
For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.			
Thistle, artichoke	—	—	2%
For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.			
Thistle, Canada	2 – 3	3 – 40	2%
Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development before the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.			
For suppression in the spring, apply 1 quart of this product, or 1 pint of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre. Allow rosette regrowth to at least 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.			
Timothy	2 – 3	3 – 40	2%
For best results, apply when most plants have reached the boot-to-head stage of growth.			
Torpedograss	4 – 5	3 – 40	2%
For partial control, apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost.			
Trumpetcreeper	2	5 – 10	2%
For partial control, apply in late September or October, to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Apply at least 1 week before a killing frost.			
Vaseygrass	3 – 5	3 – 20	2%
Apply when most plants are in the early head stage.			
Velvetgrass	3 – 5	3 – 20	2%
Apply when most plants are in the early head stage.			
Wheatgrass, western	2 – 3	3 – 40	2%
For best results, apply when most plants have reached the boot-to-head stage of growth.			

12.0 WOODY BRUSH AND TREES RATE TABLE

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. For best results apply in late summer or fall after fruit formation.

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

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

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

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alder	3 – 4	1 - 1.5%
Ash *	2 – 5	1 - 2%
Aspen, quaking	2 – 3	1 - 1.5%
Bearmat (Bearclover) *	2 – 5	1 - 2%

Weed Species	Rate (QT/A)	Hand-Held % Solution
Beech *	2 – 5	1 - 2%
Birch	2 – 3	1 - 1.5%
Blackberry	3 – 4	1 - 1.5%
Apply after plants have reached full leaf maturity. For best results apply in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a 0.75 % solution of this product. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.		
Blackgum	2 – 5	1 - 2%
Bracken	2 – 5	1 - 2%
Broom; French, Scotch	----	1.5 - 2%
Buckwheat, California *	----	1 - 2%
Thorough coverage of foliage is necessary for best results.		
Cascara *	2 – 5	1 - 2%
Catsclaw *	—	1 - 1.5%
Ceanothus *	2 – 5	1 - 2%
Chamise	—	1%
Thorough coverage of foliage is necessary for best results.		
Cherry; bitter, black, pin	2 – 3	1 - 1.5%
Coyote brush	----	1.5 - 2%
Apply when at least 50 % of the new leaves are fully developed.		
Dogwood *	2 – 5	1 - 2%
Elderberry	2 – 3	1 - 1.5%
Elm *	2 – 5	1 - 2%
Eucalyptus	—	2%
For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.		
Florida holly (Brazilian Peppertree) *	2 – 5	1 - 2%
Gorse *	2 – 5	1 - 2%
Hasardia *	----	1 - 2%
Thorough coverage of foliage is necessary for best results.		
Hawthorn	2 – 3	1 - 1.5%
Hazel	2 – 3	1 - 1.5%
Hickory *	2 – 5	1 - 2%
Honeysuckle	3 – 4	1 - 1.5%
Hornbeam, American *	2 – 5	1 - 2%
Kudzu	4 – 5	2%
Repeat applications may be required to maintain control.		
Locust, black *	2 – 4	1 - 2%
Madrone resprouts *	—	2%
Apply to resprouts that are 3 to 6 feet tall. For best results apply in spring/early summer.		
Manzanita *	2 – 5	1 - 2%
Maple, red	2 – 4	1 - 1.5%
Apply a 1 to 1.5 percent solution when at least 50 % of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre.		
Maple, sugar	----	1 – 1.5%
Apply when at least 50 % of the new leaves are fully developed.		

Weed Species	Rate (QT/A)	Hand-Held % Solution
Monkey flower *	2 – 4	1 - 2%
Thorough coverage of foliage is necessary for best results.		
Oak; black, white *	2 – 4	1 - 2%
Oak, post	3 – 4	1 - 1.5%
Oak; northern,	—	1 - 1.5%
Apply when at least 50 % of the new pin leaves are fully developed.		
Oak; southern Red	2 – 3	1 - 1.5%
Persimmon *	2 – 5	1 - 2%
Pine	2 – 5	1 - 2%
Poison ivy/Poison oak	4 – 5	2%
Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.		
Poplar, yellow *	2 – 5	1 - 2%
Redbud, eastern	2 – 5	1 - 2%
Rose, multiflora	2	1%
Treat before leaf deterioration by leaf-eating insects.		
Russian olive *	2 – 5	1 - 2%
Sage, black	----	1%
Thorough coverage of foliage is necessary for best results.		
Sage, white *	2 – 5	1 - 2%
Sage brush, California	----	1%
Thorough coverage of foliage is necessary for best results.		
Salmonberry	2 – 3	1 - 1.5%
Saltcedar	2 – 5	1 - 2%
Sassafras *	2 – 5	1 - 2%
Sourwood *	2 – 5	1 - 2%
Sumac; poison, smooth, winged *	2 – 4	1 - 2%
Sweetgum	2 – 3	1 - 1.5%
Swordfern *	2 – 5	1 - 2%
Tallowtree, Chinese	—	1%
Thorough coverage of foliage is necessary for best results.		
Tan oak resprouts *	—	2%
Apply to resprouts that are less than 3 to 6 feet tall. For best results apply in the fall.		
Thimbleberry	2 – 3	1 - 1.5%
Tobacco, tree *	----	1 - 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 – 4	1 - 1.5%

* Partial Control

13.0 INDUSTRIAL, TURF AND ORNAMENTAL USE DIRECTIONS

Detailed instructions follow alphabetically, by site. Unless otherwise specified, applications may be made to control any weeds listed in the annual, perennial and woody brush tables. Refer also to the "SELECTIVE EQUIPMENT" section.

13.1 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. 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, apply during periods of active growth and full leaf expansion.

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

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.

13.2. Forestry Site Preparation

This product is used for the control or partial control of woody brush, trees and herbaceous weeds in forestry, in preparing or establishing wildlife openings within these sites and maintaining logging roads. This product is may also be used in site preparation before 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 range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower labeled rates of this product 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 herbicide 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.

For applications using different types of equipment, see "APPLICATION RATES" table in "HAND-HELD EQUIPMENT" section of this label. TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

NOTE: For forestry site preparation, make sure the tank-mix product is approved for use before planting the desired species. Observe planting interval restrictions. Any specified rate of this product may be used in a tank mix with other products labeled for forestry site preparation.

13.3 General 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, office complexes, ornamentals, parks, pastures, parking areas, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, sod or turf seed farms, schools, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, wildlife management areas, other public areas, and similar industrial and non-crop sites.

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

This product may be used in general non-crop areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around objects in non-crop sites, for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used before planting an area to ornamentals, flowers, turfgrass (sod or seed), or before 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 other products provided that the specific product is registered for use on such non-crop sites. 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..

Chemical Mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8 fl. oz. of this product per acre when treating tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass covers. Use 6 fl. oz. 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 fl. oz. of this product in 10 to 40 gallons of spray solution per acre 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 fl. oz. of this product per acre on a broadcast basis.

For best results, time treatment to coincide 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 fl. oz. of this product per acre as soon as plants are actively growing, and before 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 before spring greenup.

Apply 8 to 64 fl. oz. of this product per acre. Apply the specified 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 fl. oz. 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 sulfometuron methyl or sulfosulfuron 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 fl. oz. of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus sulfometuron methyl 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 before 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 before 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. Tillage or renovation techniques such as vertical mowing, delay 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. Do not feed or graze turfgrass grown for seed or sod production for 8 weeks following application.

13.4 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, before 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 before 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.

13.5 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 0.04 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
Oak	Black gum
Poplar	Hickory
Dogwood	Maple, red
Sweetgum	
Sycamore	

13.6 Hollow Stem Injection

This product may be applied through hand-held injection devices that deliver specific 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:

Japanese Knotweed, *Polygonum cuspidatum*, Bohemian Knotweed, *Polygonum bohemicum:* Inject 5 mL per stem of this product between second and third internode.

Giant Hogweed, *Heracleum mantegazzianum*, Poison Hemlock, *Conium maculatum:* Inject one leaf cane per plant 12 inches above root crown with 5 mL of a 5% v/v solution of this product.

Field Horsetail, *Equisetum arvense:* Inject one segment above the root crown with 0.5 mL per stem of this product. Use a small syringe that calibrates to this rate.

Canada Thistle, *Cirsium arvense:* Cut 8 or 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL per stem of this product is injected into the stem.

Note: The combined total for all treatments must not exceed 10.6 quarts per acre of this product. At 56 mL per stem, 10.6 quarts should treat about 1300 stems per acre.

13.7 Non-Food Tree, Shrub, or Vine Production Sites

This product may be used for general weed control before planting or 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 or yew, in any production site.

UNLESS OTHERWISE DIRECTED, THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Avoid contact of spray, drift or mist with foliage or green bark of desirable species.

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.

TYPES OF APPLICATION: Site Preparation, Post-directed, Trim-and-Edge, Wiper Application

Site Preparation

Use before planting any tree, shrub, or vine in an ornamental, nursery, or production setting, including Christmas tree species.

Post-directed, Trim-and-Edge

Use as a post-directed spray around established woody species, or to trim and edge around trees, buildings, sidewalks and roads, potted plants and other objects in a production setting.

Protect desirable plants from the spray solution by using shields or coverings made of cardboard or other impermeable material.

Wiper Application

Apply through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established trees, shrubs, or vines. See the "SELECTIVE EQUIPMENT" section of this label for further information about the proper use of wiper applicators.

13.8 Christmas Trees

NOTE: IF IMPROPERLY APPLIED, THIS PRODUCT HAS THE POTENTIAL TO CAUSE SEVERE CHRISTMAS TREE INJURY. FOLLOW ALL LABELED DIRECTIONS.

This product may be applied as a broadcast spray over established Christmas trees. Ensure that adequate buffers are maintained to prevent drift onto nearby desirable crops or vegetation. Read the entire "APPLICATION EQUIPMENT AND TECHNIQUES" section of the **Glypho 41 Herbicide** label for additional application precautions.

This application is approved for the following Christmas tree species:

Douglas fir	*(Pseudotsuga menziesii)*
Fir species	*(Abies spp.)*
Spruce species	*(Picea spp.)*

Applications may be made only after trees have completed at least a full growing season since planting or transplanting. Do not applywithin 1 full year before tree harvest. Applications may only be made in the fall after the formation of final conifer resting buds. Final resting buds must be fully hardened and in the dormant stage. Applications made at any other time may result in unacceptable Christmas tree injury.

Avoid spray pattern overlap, as injury may occur. Apply 1 quart of this product per acre in 5 to 30 gallons of water per acre.

NOTE: DO NOT ADD SURFACTANTS, ADDITIVES CONTAINING SURFACTANTS, OR ANY OTHER ADDITIVES TO THIS PRODUCT OR SEVERE CHRISTMAS TREE INJURY MAY RESULT.

This product may be used at rates from 1 to 2 quarts per acre in some areas. Consult your local UNITED PHOSPHORUS representative for specific information if you require rates greater than 1 quart per acre.

Use of drift control additives may increase Christmas tree injury.

The use of other herbicides tank mixed with Glypho 41 herbicide is not recommended since severe Christmas tree injury may result.

13.9 Railroads

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to railroads.

Bare ground, Ballast and Shoulders, Crossings, Spot Treatments

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 other products provided that the specific product is registered for ballast, shoulder, spot, bare ground and crossing treatments. Refer to these product labels for approved non-crop sites and application rates. Read and

carefully follow 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.

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 0.75 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.

TANK MIXTURES: This product may be mixed with other products labeled for this use, for enhanced control of woody brush and trees.

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

TANK MIXTURES: This product may be tank mixed with sulfometuron methyl. If tank mixed, use no more than 1 to 3 pints of this product with 1 to 2 ounces of sulfometuron methyl 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 sulfometuron methyl 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. Do not make repeat applications in the same season, since severe injury may occur.

13. 10 Roadsides

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to roadsides.

Shoulder Treatments

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

Guardrails and Other Obstacles to Mowing

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

Spot Treatment

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

TANK MIXTURES: This product may be tank-mixed with products labeled for shoulder, guardrail, spot, and bare ground. 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 of 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.

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 before spring greenup. This product may also be tank-mixed with sulfosulfuron or sulfometuron methyl for residual control. Tank mixtures of this product with sulfometuron methyl may delay greenup.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches tall) 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 fl. oz. of this product in a tank mixture with 0.75 to 1.3 ounces sulfosulfuron herbicide per acre. Read and follow all label directions for tank mix products.

Apply 8 to 64 fl. oz. of this product per acre alone or in a tank mixture with 0.25 to 1 ounce per acre of sulfometuron methyl. Apply the specified rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in green up and minimize injury, add no more than 1 ounce of sulfometuron methyl per acre on Bermudagrass and no more than 0.5 ounce of sulfometuron methyl 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 sulfometuron methyl. If tank-mixed, use no more than 1 to 2 pints of this product with 1 to 2 ounces of sulfometuron methyl 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 tank mix partner 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. Avoid repeat applications of the tank mix in the same season, since severe injury may occur.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fl. oz. 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 before seedhead emergence.

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

TANK MIXTURES: This product may be used for control or partial control of Johnsongrass and other weeds listed on the sulfosulfuron label in actively growing bahiagrass. Apply 6.2 5 fl. oz. of this product with 0.75 to 2.0 ounces of sulfosulfuron per acre. Use only on well established bahiagrass.

A tank mixture of this product plus sulfometuron methyl may be used. Apply 6 fl. oz. of this product plus 0.25 ounce of sulfometuron methyl per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

13.11 Utility Sites

In utilities, this product is for use along electrical power, pipeline and telephone rights-of-way, and in other sites associated with these rights-of-way, such as substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities. This product 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 before planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

This product may also be used to prepare or establish wildlife openings within these sites, maintain 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. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any specified rate of this product may be used in a tank mix. User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a single generic active ingredient.

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

[2] For side trimming treatments, use this product alone or in tank mixture with a product containing triclopyr (such as Garlon 4).

* Ensure that products containing triclopyr (i.e. Garlon 3A, Garlon 4) are 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, 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 before 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.

13.12 GROUND AND AERIAL APPLICATIONS TO BRUSH AND CHAPARRAL IN CALIFORNIA ONLY

USE DIRECTIONS

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds. Nonionic surfactants which are labeled for use with herbicides may be used to improve wetting of foliage. Do not reduce rates of **Glypho 41 Herbicide** when adding surfactant. Read and carefully observe surfactant rates, cautionary statements, and other information appearing on the surfactant label.

TIMING OF APPLICATION: Apply this product as a broadcast spray when plants are actively growing for partial control of undesirable vegetation listed on this label. For best results apply in the spring to early summer when brush species are at a high moisture content and flowering.

This product may be used as labeled for:

- Aid to burning treatment to establish and maintain fuel breaks
- Establishing fire perimeters and black lines
- Aid to prescribed burning
- Along fire roads and rights-of-way
- Range conversion
- Site preparation in forestry

APPLICATION INSTRUCTIONS: Apply 2 quarts of this product per acre for partial control of the following emerged brush and chaparral species:

Ceanothus	Adenostoma fasciculatum	Scrub oak
Ceanothus spp.	Sage	Quercus dumosa
Chamise	Salvia spp.	

Make ground applications in 3 to 40 gallons of total spray solution per acre.

Make aerial applications (helicopter only) in 3 to 15 gallons of total spray solution per acre.

Avoid direct application to any body of water.

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

For aerial application of this product, please see the supplemental label directions for aerial application in California.

13.13 CONIFER RELEASE

AERIAL APPLICATION

This product may be applied using aerial spray equipment for conifer release treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of the label for Glypho 41 herbicide for information on how to properly spray this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

USE INSTRUCTIONS: For release, apply only where conifers have been established for more than one year. Do not disturb vegetation before treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth.

Applications must be made after formation of final conifer resting buds in the fall or before initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of the label for Glypho 41 herbicide.

PRECAUTIONS, RESTRICTIONS: **Do not use additional surfactant with conifer release applications.**

For release of the following conifer species:

Douglas Fir *Pseudotsuga menziesii*	**Hemlock** *Tsuga spp.*	**Spruce** *Picea spp.*
Fir *Abies spp.*	**Pines*** *Pinus spp.*	

*Includes all species except eastern white pine, loblolly pine or slash pine.

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock apply 1 quart of this product per acre.

For release of the following conifer species:

Loblolly pine *Pinus taeda*	**Eastern white pine** *Pinus strobus*	**Slash pine** *Pinus elliottii*

Late Season Application – Apply 1.5 to 2 quarts of this product in at least 5 gallons of spray solution per acre during early autumn. Applications made before September 1 or when conditions are conducive to rapid growth of conifers will result in potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later application. Some autumn colors are acceptable at time of application. Apply before frost or leaf drop of undesirable plants. Applications made according to label direction will release loblolly pine, eastern white pine and slash pine by reducing competition from the following species:

Ash *Fraxinus spp.*	**Oak, black** *Quercus velutina*	**Sassafras** *Sassafras albidum*
Cherry, black *Prunus serotina*	**Oak, post** *Quercus stellata*	**Sourwood** *Oxydendrum arboreum*
Cherry, pin *Prunus pensylvanica*	**Oak, southern red** *Quercus falcata*	**Sumac, poison** *Rhus vernix*
Elm *Ulmus spp.*	**Oak, white** *Quercus alba*	**Sumac, smooth** *Rhus glabra*
Hawthorn *Crataegus spp.*	**Persimmon** *Diospyros spp.*	**Sumac, winged** *Rhus copallina*
Locust, black *Robina pseudoacacia*	**Poplar, yellow** *Liriodendron tulipfera*	**Sweetgum** *Liquidambar styraciflua*
Maple, red *Acer rubra*		

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

TANK MIX WITH SULFOMETURON METHYL TANK MIXTURES FOR CONIFER RELEASE FROM HERBACEOUS WEEDS

To release loblolly pines from herbaceous weeds, tank mixtures of this product with products containing sulfometuron methyl will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for Glypho 41 herbicide and sulfometuron methyl , and partial control of the perennial weeds listed below.

Apply 16 to 24 fl. oz. of Glypho 41 herbicide with 2 to 4 ounces of sulfometuron methyl in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly pines.

This product plus sulfometuron methyl tank mixtures may not be applied by air in California. This tank mixture may be applied using aerial equipment. When applying by air, use the specified rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the low rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass
Paspalum notatum

Broomsedge
Andropogon virginicus

Dock, curly
Rumex crispus

Dogfennel
Eupatorium capilliforium

Fescue, tall
Festuca arundinacea

Johnsongrass**
Sorghum halepense

Poorjoe**
Diodia teres

Trumpetcreeper*
Campsis radicans

Vaseygrass
Paspalum urvillei

Vervain, blue
Verbena hastata

*Suppression at the higher rates only.
**Control at the higher rates.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease. Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

13.14 SELECTIVE WEED CONTROL ON GLYPHOSATE-TOLERANT PURE GOLD® TALL FESCUE AND AURORA GOLD® FINE FESCUE SELECTIONS

Use this product on glyphosate-tolerant tall and fine fescue grown for seed production only.

USE INSTRUCTIONS: Apply at rates of 4 to 16 fl. oz. per acre as a postemergence spray on glyphosate-tolerant tall fescue selections. The label for application instructions, rates, weeds controlled and proper growth stage of weeds.

When applied postemergence, this product will control or suppress the following weeds: annual bluegrass, mustards, downy brome, cheatgrass, chickweed, pennycress, fleabane, shepherd's-purse, sowthistle, wild oat, dandelion, quackgrass, and Canada thistle.

NOTE: Some crop discoloration and yellowing may occur at higher rates of application with glyphosate-tolerant tall and fine fescue selections. Reduction in stand of these selections may occur under stress conditions.

Timing of Applications

Application may be made 6 weeks after germination and to established crops after growth resumes in the fall until onset of dormancy and in the spring after dormancy break until 60 days before harvest.

PRECAUTIONS, RESTRICTIONS: Avoid spraying during or within two weeks after periods when air temperatures fall below 25°F. Remove domestic livestock from the seed production field before application. Wait 60 days after making this application before grazing or harvesting the treated area.

NOTE: Only two applications per crop growth cycle may be made to any one site. If two applications are required, only one fall and one spring application may be made during one 12 month cycle.

13.15 REMOVAL OF UNDESIRABLE VEGETATION IN NON-AGRICULTURAL SITES

For use on plants in non-crop and non-timber areas. Not for use on crops, timber, or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

For use in backpack, knapsack sprayers. Mix the specified amount of this product with water in a larger container, then fill sprayer with the mixed solution.

Aerial Application Equipment – Fixed Wing and Helicopter

Use the specified rates in 2 to 15 gallons of total spray volume per acre unless otherwise specified on this label. Refer to the individual use area sections of this label for volumes, application rates, and further instructions.

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

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

Avoid direct application to any body of water.

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.

Observe all drift management states elsewhere on this label.

APPLICATION SITES, TIMING, AND RATES

Application Sites: This product may be used for:

- Control of undesired annual and perennial herbaceous weeds in non-cropped rangelands.
- Control of undesired woody brush and small trees.
- Aid to burning treatment to establish and maintain fuel breaks, fire perimeters, and black lines.
- Along roads and utility rights-of-way.
- Around industrial sites, parking, buildings, fencing, etc.
- Range conversion.
- Habitat restoration and management.
- Wildlife food plots.

Application Techniques

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

Reduced control may result when treating weeds under poor growing conditions such as drought stress, disease or insect damage. Reduced results may also occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur before treatment.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds. Repeat treatments may be made up to an annual maximum of 10.6 quarts of this product per acre.

Application Timing and Rates

Annual Weeds: Annual weeds are easiest to control when they are small.

Apply this product as a broadcast spray or spot treatment when plants are actively growing. For best results apply in the spring to early summer when brush species are at a high moisture content and flowering.

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 0.5 % solution of this product to weeds less than 6 inches in height or runner length. Apply before 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.

See the "WEEDS CONTROLLED – ANNUAL WEEDS" section of the label for a detailed listing of weeds controlled by this product.

Perennial Weeds: For best results treat perennial weeds 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 before these growth stages. Under these conditions, use the higher application rate within the specified range. Use a 2 % solution on tough-to-control perennials such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed, and Canada thistle. See the "WEEDS CONTROLLED – PERENNIAL WEEDS" section of the label for a detailed listing of weeds controlled by this product.

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.

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. For best results apply 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. See the "WEEDS CONTROLLED – WOODY BRUSH AND TREES" section of the label for a detailed listing of weeds controlled by this product.

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 before 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.

LIMITATIONS ON AERIAL APPLICATION FOR BRUSH CONTROL IN CALIFORNIA – see the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" section of this label for limitations.

15.0 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 (non-cultivated) 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 before treatment.

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

15.1 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 0.5 % solution of this product to weeds less than 6 inches in height or runner length. Apply before 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.

For low volume directed spray applications, use a 4 to 7 percent solution of this. Spray coverage should be uniform with at least 50 % 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.

WEED SPECIES			
Anoda, spurred	Eastern mannagrass*	Lamb's-quarters*	Sicklepod
Barley*	Eclipta*	Little barley*	Signalgrass, broadleaf*
Barnyardgrass*	Fall panicum*	London rocket*	Smartweed, ladysthumb*
Bittercress*	Falsedandelion*	Mayweed	Smartweed, Pennsylvania*
Black nightshade*	Falseflax, smallseed*	Medusahead*	Sowthistle, annual
Bluegrass, annual*	Fiddleneck	Morningglory *(Ipomoea spp)*	Spanishneedles
Bluegrass, bulbous*	Field pennycress*	Mustard, blue*	Speedwell, purslane*
Bassia, fivehook	Filaree	Mustard, tansy*	Sprangletop*
Brome, downy*	Fleabane, annual*	Mustard, tumble*	Spurge, annual

WEED SPECIES			
Brome, Japanese*	Fleabane, hairy *(Conyza bonariensis)**	Mustard, wild*	Spurge, prostrate*
Browntop panicum*	Fleabane, rough*	Oats	Spurge, spotted*
Buttercup*	Florida pusley	Pigweed*	Spurry, umbrella*
Carolina foxtail*	Foxtail*	Plains/Tickseed coreopsis*	Starthistle, yellow
Carolina geranium	Goatgrass, jointed*	Prickly lettuce*	Stinkgrass*
Castor bean	Goosegrass	Puncturevine	Sunflower*
Cheatgrass*	Grain sorghum (milo)*	Purslane, common	Teaweed/ Prickly sida
Cheeseweed *(Malva parviflora)*	Groundsel, common*	Ragweed, common*	Texas panicum*

Chervil*	Hemp sesbania	Ragweed, giant	Velvetleaf
Chickweed*	Henbit	Red rice	Virginia copperleaf
Cocklebur*	Horseweed/Marestail *(Conyza canadensis)*	Russian thistle	Virginia pepperweed*
Copperleaf, hophornbeam	Itchgrass*	Rye*	Wheat*
Corn*	Johnsongrass, seedling	Ryegrass*	Wild oats*
Corn speedwell*	Junglerice	Sandbur, field*	Witchgrass*
Crabgrass*	Knotweed	Shattercane*	Woolly cupgrass*
Dwarfdandelion*	Kochia	Shepherd's-purse*	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.

15.2 Perennial Weeds

For best results treat perennial weeds 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 before these growth stages. Under these conditions, use the higher application rate within the specified range. Use a 1.5 % 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. Spray coverage should be uniform with at least 50 % 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 weeds when foliage is thick and dense or where there are multiple sprouts.

Allow 7 or more days after application before tillage.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	1	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
Weed Species	**Rate (QT/A)**	**Hand-Held % Solution**
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
Trumpetcreeper*	2 - 3	2
Vaseygrass	3 - 5	2
Velvetgrass	3 - 5	2
Wheatgrass, western	2 - 3	2

*Partial control

15.3 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. For best results apply 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. For best results when using when using handheld equipment, use a 1.5 % solution on harder-to-control woody brush and trees. When using hand-held equipment for low volume directed-spray spot treatments, apply a 5 to 10 percent solution of this product. Spray coverage should be uniform with at least 50 % 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 sprouts.

Symptoms may not appear before 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
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

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
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
Yerbasenta*	—	2

*Partial control

STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed, or seed by storage or disposal.

PESTICIDE STORAGE: Keep container closed to prevent spills and contamination.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.
CONTAINER DISPOSAL: Non-refillable containers: Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying.
Non-refillable less than 5 gallons: 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 2 more times.

Non-refillable larger than 5 gallons: 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 complete revolution, for 30 seconds. Stand the container on its 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 2 more times.

Refillable container (250 gallon and bulk): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 % full of 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 process 2 more times.

IMPORTANT INFORMATION

READ BEFORE USING PRODUCT

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UNITED PHOSPHORUS, INC. AND SELLER MAKE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ON THIS LABEL.

To the extent consistent with applicable law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of United Phosphorus, Inc.