34704-929 4.4.2007

1/70

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON DC 20460

OFFICE OF
PREVENTION PESTICIDES AND
TOXIC SUBSTANCES

APR 4 2007

Scott Baker
Registration Manager
Loveland Products, Inc.
P.O. Box 1286
Greeley, CO 80632-1286

SUBJECT: Application for Pesticide Notification – Clarify Adjuvants for Tank Mixing
Glypho 648
EPA Reg. No. 34704-929
Application Dated February 6, 2007

Dear Mr. Baker:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the product above. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

2/70

ease read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☑ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
34704-929	James A. Tompkins	☑ None ☐ Restricted
1a. Company/Product (Name)	PM#	
Glypho 648	25	

4. Name and Address of Applicant *(Include ZIP Code)*

Loveland Products, Inc.
P.O. Box 1286
Greeley, Colorado 80632-1286

☐ *Check if this is a new address*

6. **Expedited Reveiw.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. _____

Product Name _____

Section - II

☐ Amendment - Explain below.
☐ Resubmission in response to Agency letter dated _____
☑ Notification - Explain below.
☐ Final printed labels in repsonse to Agency letter dated
☐ "Me Too" Application.
☐ Other - Explain below.

NOTIFICATION
APR 04 2007

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification to clarify adjuvant use recommendations, minor label change per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 95-2 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA."

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify)
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information ☐ Label ☐ Container

4. Size(s) Retail Container

5. Location of Label Directions ☐

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☐ Paper glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Scott Baker scott.baker@uap.com	Registration Manager	970-347-1460

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

8. Date Application Received (Stamped)

2. Signature	3. Title
Scott Baker	Registration Manager
4. Typed Name	**5. Date**
Scott Baker	February 6, 2007

EPA 1 (R... 2-94) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant Copy

3/10

Loveland
PRODUCTS INC.

Performance Quality Value

February 6, 2007

NOTIFICATION

APR 04 2007

Document Processing Desk (7504P)
U.S. Environmental Protection Agency
Room S4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

Subject: Glypho 648 - EPA Reg. No. 34704-929

Loveland Products, Inc., is submitting the enclosed notification to clarify the adjuvant recommendations for tank mixing

Please find the following enclosed:

1. Application for Registration.
2. 2 copies of label. 1 copy has the additional text highlighted.

Please contact me at 970-347-1468 or by e-mail: scott.baker@uap.com if there are any questions or comments concerning this submission.

Sincerely,

Scott Baker
Registration Manager
Enclosures

7251 W 4th Street (80634) • PO Box 1286 • Greeley, CO 80632-1286 • (t) 970/356-4400 • (f) 970/347-1565

4/10

Glypho 648

NOTIFICATION

APR 04 2007

FOR USE ON ROW CROPS, CITRUS, CEREAL GRAINS, VEGETABLE CROPS AND EMERGED AQUATIC WEEDS AND BRUSH IN AQUATIC AND OTHER NONCROP SITES.

ACTIVE INGREDIENTS:	
Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt*	53.8%
INERT INGREDIENTS:	46.2%
TOTAL	100%

*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the acid, glyphosate.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 34704- 929

EPA Est. No. 34704-MS-1

Net Contents ____ U.S. Gals.

Loveland
PRODUCTS INC.
P.O. Box 1286
Greeley, CO 80632

First Aid:
If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing: 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.

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.
FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if inhaled or swallowed. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE):
Applicators and other handlers must wear long-sleeved shirt and long pants and 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROL STATEMENTS:
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 contaminate water when disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen loss from decomposition of dead weeds. This loss can cause fish suffocation. Therefore, to minimize this hazard, treat 1/3 to ½ of the water area in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is needed.

PHYSICAL OR CHEMICAL HAZARDS

Spray solution of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic and 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.

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 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. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry into treated areas that is permitted under Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical resistant gloves made of any waterproof material and 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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: STORE ABOVE 10°F (-12°C) TO KEEP PRODUCTS FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and shake, roll or agitate to mix well before using.

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. Emptied container retains vapor and product residue. Observe all label safeguards until container is destroyed.

CONTAINER DISPOSAL: Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL FOR REFILLABLE CONTAINERS: Close all openings which have been opened during use and replace all caps.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – **1-800-424-9300.**

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDNCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.

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

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL OR CURRENT SUPPLEMENTAL LABELING ISSUED BY THE MANUFACTURER, IF SUCH LABELING EXISITS.

This product, a water-soluble liquid, mixes readily with water and nonionic surfactant to be applied as a foliar spray for the control or destruction of many herbaceous and woody plants.

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 brush species may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow the activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to the complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise directed on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label.

8/10

Unemerged plants arising from unattached underground rhizomes or root stocks of perennials or brush will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds or brush is obtained when treatment is made at late growth stages approaching maturity.
Always use the higher rate of this product per acre within the recommended range when vegetation is heavy or dense.
Do not treat weeds or brush under poor growing conditions such as drought stress, disease or insect damage, as reduced control may result. Reduced results may also occur when treating weeds or brush heavily covered with dust.
Reduced control may result when applications are made to any weed or brush species that have been mowed, grazed or cut, and have not been allowed to regrow to the recommended stage for treatment.
Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the product off the foliage and repeat treatment may be required.
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.
Read "WARRANTY" before buying or using. If items are not acceptable, return at once unopened. Buyer and all users are responsible for all loss or damage in connection with the use of handling of mixtures of this product or other materials that are not expressly recommended in this label. Mixing this product with herbicides or other materials not recommended in this label may result in reduced performance.

ATTENTION
AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS, OR FRUIT CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.
Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of plant or crop 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) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.
NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. When not in use, keep container closed to prevent spills and contamination.

MIXING AND APPLICATION INSTRUCTIONS
APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF

WATER CONTAINER SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: fill the mixing or spray tank with the required amount of water while adding the required amount of this product (see "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this liable). Near the end of the filling process, add the required surfactant and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the water source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and if needed use an approved anti-foam or defoaming agent.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select correct nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.
Mix labeled tank mixture 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 a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. 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.
5. 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.
6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
8. 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 bottom of tank to minimize foaming.
Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.
When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Use a nonionic surfactant labeled for use with herbicides. The surfactant must contain 50 percent or more active ingredient.
Always read and follow the manufacturer's surfactant label recommendations for best results.
These surfactants should not be used in excess of 1 quart per acre when making broadcast applications. Loveland Products recommends the use of Weather Gard Complete, LI 700®, or Liberate® at 0.25% to 0.50% v/v.
Colorants or marking dyes approved for use with herbicides may be added to spray mixtures of 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 label recommendations.
Clean sprayer and parts immediately after using this product by thoroughly flushing with water and dispose of rinsate according to labeled use or disposal instructions.
Carefully observe all cautionary statements and other information appearing in the surfactant label.
Ammonium Sulfate should be utilized in the tank mix at 8.5 to 17 lbs. per 100 gallons of spray solution, alternatively CHOICE® WEATHER MASTER may be used in place of Ammonium Sulfate, the recommended rates for CHOICE WEATHER MASTER are 2 to 6 pints per 100 gallons of spray solution. Higher mineral content in water will require the higher rates of CHOICE WEATHER MASTER.

APPLICATION EQUIPMENT AND TECHNIQUES
Do not apply this product through any type of irrigation equipment.
This product may be applied with the following application equipment:
Aerial – Fixed Wing and Helicopter
Broadcast Spray
Controlled Droplet Applicator (CDA) – Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.
Hand-held and 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 sprayers and wiper applicators.
See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT
Use the recommended rates of this herbicide in 3 to 20 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed 1½ pints per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems, Roundup Ready crops, noncrop areas and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. For specific state information, consult following section and state pesticide regulatory agency.

STATE INFORMATION AND AERIAL APPLICATION

ARKANSAS:

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 recommended rate of this product in 3 to 15 gallons of water per acre.

Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range 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 air flow 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 2mph.

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

CALIFORNIA – Statewide:

Aerial applications of this product are allowed in the following situations:

1. In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
2. In cotton, prior to harvest. Refer to the specified preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product for 30 days following application.

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

DO NOT EXCEED A MAXIMUM RATE OF 48 OUNCES PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN FALLOW AND REDUCED TILLAGE SYSTEMS.

DO NOT EXCEED A MAXIMUM RATE OF 24 OUNCES PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN COTTON, PRIOR TO HARVEST.

Use the recommended rates of this product in 3 to 15 gallons of water per acre.
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 washwaters.
AVOID DRIFT – DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW 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 all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) 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. Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which disperse spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase 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 and all other information appearing on the additive label.
Ensure uniform application – to avoid streaked, uneven or overlapped application, use appropriate marking devices.
CALIFORNIA – Aquatic and Non-Crop Sites: For full application directions see the "Aquatic Sites and Noncrop Uses" section of this label booklet. 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. Aerial applications may be made with helicopter only.
1. Do not apply within 100 feet of desirable vegetation or crops.
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of the minimum 500 feet.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

CALIFORNIA – Fresno County: This section applies to aerial applications in Fresno County from February 15 through March 31 only. For aerial application outside of these dates, refer to the "CALIFORNIA – Statewide" section.
APPLICABLE AREA: This supplement only applies to the area contained inside the following boundaries within Fresno County, California only. North: Fresno County line, South: Fresno County line, East: State Highway 90, 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

herbicide. 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 prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

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

APPLICATION AT NIGHT: Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

AVOID DRIFT – DO NOT APPLY DURING LOW-LEVEL INVERSION CONDITIONS, 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.

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 above the manufacturer's recommendation.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the precautionary statements and all other information appearing on the additive label.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

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 Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size

Volume-Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with 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 protection. 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 ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application – Applications should not be made 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 exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT - When applications are made with a cross-wind, 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. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND - Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph 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 - Application 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 connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS - The pesticides should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

Ensure uniform application – to avoid streaked, uneven or overlapped 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.

This product plus Oust™, Banvel®, dicamba or 2,4-D tank mixtures may not be applied by air in California.

BOOM EQUIPMENT

For control of weed or brush species listed in this label using conventional boom equipment – Use the recommended rates of this product and surfactant in 3 to 30 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "WEEDS CONTROLLED" section of this label for specific rates. As density of vegetation increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select correct nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 15 percent solution of this product plus 1.5 ounces non-ionic surfactant per quart spray solution at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 MPH (1½ pints of this product per acre). For the control of labeled perennial weeds, apply a 15 to 30 percent solution of this product plus 1.5 to 3 ounces non-ionic surfactant per quart spray solution at a flow rate of 2 fluid ounces per minute and walking speed of 0.75 mph (1½ to 3 pints of this product per acre).

Controlled droplet application equipment produces a spray pattern which 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.

HAND-HELD and HIGH-VOLUME EQUIPMENT

Use Coarse Sprays Only

For control of weeds listed in this label using knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements – Prepare a ¾ to 2

percent solution of this product in water, add a nonionic surfactant and apply to foliage of vegetation to be controlled. For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section in this label.

Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff.

This product may be used as a 5 to 8 percent solution for low-volume directed sprays for spot treatment of trees and brush. It is most effective in areas where there is a low density of undesirable trees or brush. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. Ensure that at least 50 percent of the leaves are contracted by the spray solution. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. Small, open-branched trees need only be treated from one side. If the foliage is thick or there are multiple root sprouts, applications must be made from several sides to ensure adequate spray coverage.

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

Spray Solution

AMOUNT OF GLYPHO 648 HERBICIDE						
DESIRED VOLUME	**¾%**	**1%**	**1 ¼%**	**1 ½%**	**5%**	**8%**
1 Gal.	1 oz.	1 1/3 oz.	1 2/3 oz	2 oz.	6 oz.	1 ¼ oz.
25 Gal.	1 ½ pt.	1 qt.	1 ¼ qt.	1 ½ qt.	5 qt.	2 gal.
100 Gal.	3 qt.	1 gal.	1 ¼ gal.	1 ½ gal.	5 gal.	8 gal.

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution and add the correct amount of surfactant.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

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

A shielded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops (such as wiper applications) should be made when the weeds are a minimum of 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 APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLED" section of this label.

Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

Band width in inches/Row width in inches X Herbicide broadcast rate per acre = Herbicide Band Rate per acre

Band width in inches/Row width in inches X Broadcast Volume of solution per acre = Band Volume of solution per acre

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

WIPER APPLICATIONS

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

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 mph. Performance may be improved by reducing speed in areas of heavy weed infestation to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

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

Do not use wiper 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.

Add 10 ounces nonionic surfactant per gallon of this product added to wiper solution.

For Rope or Sponge Wick Applicators – Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators – Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as recommended under the conditions described as "WIPER APPLICATORS", this product CONTROLS or SUPRESSES the following weeds:

The maximum use rates stated throughout this 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.

Except as otherwise specified in a crop section of the label, the combined total of all treatments must not exceed 6 quarts of this product per acre per year. For applications in non-crop sites, tree, vine or shrub crops, the combined total of all treatments must not exceed 8 quarts of this product per acre per year.

CONTROL

Annual grasses		Annual broadleaves	
Corn	*Zea mays*	Sicklepod	*Casia obtusifolia*
Rye, common	*Secale cereale*	Starbur, bristly	*Acanthospermum hispidum*
Panicum, Texas	*Panicum taxanum*	Spanishneedles	*Bidens bipinnata*
Shattercane	*Sorghum bicolor*		

SUPPRESSION

Perennial Grasses		Annual broadleaves	
Bermudagrass	*Cynodon dactylon*	Beggarweed, Florida	*Desmodium tortuosum*
Guineagrass	*Panicum maximum*	Dogfennel	*Eupatorium capilliflorium*
Johnsongrass	*Sorghum halepense*	Pigweed, redroot	*Amaranthus retroflexus*
Smutgrass	*Sporobolus poiretti*	Ragweed, common	*Ambrosia artemisiifolia*
Vaseygrass	*Paspalum urvillei*	Ragweed, giant	*Ambrosia trifida*
		Sunflower	*Helianthus annuus*
Perennial broadleaves		Thistle, musk	*Carduus nutans*
Dogbane, hemp	*Apocynum cannabinum*	Velvetleaf	*Abutilon theophrasti*
Milkweed	*Aecalepias syriaca*		
Nightshade, silverleaf	*Solanum alaeagnifolium*		
Thistle, Canada	*Cirsium arvense*		

WEEDS CONTROLLED and RATES OF APPLICATION

This section summarizes the general weed control and rates of application for this herbicide. Additional information specific to individual use patterns is detailed in the following sections.

ANNUAL WEEDS

Apply to actively growing annual grasses and broadleaf weeds.

Allow at least 3 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See "DIRECTIONS FOR USE," "GENERAL INFORMATION" and "MIXING AND APPLICATION INSTRUCTIONS" for labeled uses and specific application instructions.

Broadcast Application – Use 1 ½ pints of this product per acre plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution if weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2 ½ pints of this product per acre plus 2 or more quarts of an approved nonionic surfactant per 100 gallons of spray solution.

Hand-Held, High-Volume Application – Use a ¾ percent solution of this product in water plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution and apply to foliage of vegetation to be controlled.

When applied as directed under the conditions described in this label, this product plus nonionic surfactant WILL CONTROL the following ANNUAL WEEDS:

Balsamapple** - *Momordica charantia*
Barley - *Hordeum vulgare*
Barnyardgrass - *Echiniochloa crus-galli*
Bassia, fivehook - *Bassia hyssopifolia*
Bluegrass, annual - *Poa annua*
Bluegrass, bulbous - *Poa bulbosa*
Brome - *Bromus spp.*
Buttercup - *Ranunculus spp.*
Cheat - *Bromus secalinus*
Chickweed, mouseear - *Cerastium vulgatum*
Cocklebur - *Xanthium strumarium*
Corn, volunteer - *Zea mays*
Crabgrass - *Digitaria spp.*
Dwarfdandelion - *Krigia cespitosa*
Falseflax, smallseed - *Camelina microcarpa*
Fiddleneck - *Amsinckia spp.*
Flaxleaf fleabane - *Conyza bonariensis*
Fleabane - *Erigeron spp.*
Foxtail - *Setaria spp.*
Foxtail, Carolina - *Alopecurus carolinianus*
Groundsel, common - *Senecio vulgaris*
Horseweed/Marestail – *Conyza Canadensis*
Kochia - *Kochia scoparia*
Lambsquarters, common - *Chenopodium album*
Lettuce, prickly - *Lactuca serriola*
Morningglory - *Ipomoea spp.*
Mustard, blue - *Chorispora tenella*
Mustard, tansy - *Descurainia pinnata*
Mustard, tumble – *Sisymbrium altissimum*
Mustard, wild - *Sinapis arvensis*
Oats, wild - *Avena fatua*
Panicum - *Panicum spp.*
Pennycress, field - *Thlaspi arvense*
Pigweed, redroot - *Amaranthus retroflexus*
Pigweed, smooth - *Amaranthus hybridus*
Ragweed, common - *Ambrosia artemisiifolia*
Ragweed, giant - *Ambrosia trifida*
Rocket, London - *Sisymbrium irio*
Rye - *Secale cereale*
Ryegrass, Italian* - *Lolium multiflorum*
Sandbur, field - *Cenchrus spp.*
Shattercane - *Sorghum bicolor*
Shepherd's purse – *Capsella bursa-pastoris*
Signalgrass, broadleaf – *Brachiaria platyphylla*
Smartweed, Pennsylvania – *Polygonum pensylvanicum*
Sowthistle, annual - *Sonchus oleraceus*
Spanishneedles* - *Bidens bipinnata*
Spurry, umbrella – *Holosteum umbellatum*
Stinkgrass - *Eragrostis cilianensis*
Sunflower - *Helianthus annus*
Thistle, Russian - *Salsola kali*
Velvetleaf - *Abutilon theophrasti*
Wheat - *Triticum aestivum*
Witchgrass - *Panicum capillare*

*Apply 3 pints minimum of this product per acre.
** Apply with hand-held equipment only.

Annual weeds will generally continue to germinate from seed throughout the growing season. Repeat treatments will be necessary to control later germinating weeds.

PERENNIAL WEEDS

Apply this product as follows to control or destroy most vigorously growing perennial weeds. Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.

Add 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution to the rates of this product given in this list. See the "GENERAL INFORMATION' "DIRECTIONS FOR USE" and "MIXING AND APPLICATION" sections in this label for specific uses and application instructions.

NOTE: If weeds have been mowed or tilled, do not treat until regrowth has reached the recommended stages. Fall treatments must be applied before a killing frost.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

When applied as recommended under the conditions described, this product plus surfactant WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa - *Medicago sativa*
Alligatorweed* - *Alternanthera philoxeroides*
Anise/Fennel - *Foeniculum culgare*
Artichoke, Jerusalem – *Helianthus tuberosus*
Bahiagrass - *Paspalum notatum*
Bermudagrass - *Cynodon dactylon*
Bindweed, field - *Convolvulus arvensis*
Bluegrass, Kentucky - *Poa pratensis*
Blueweed, Texas - *Helianthus ciliaris*
Brakenfern - *Pteridium spp.*
Bromegrass, smooth - *Bromus inermis*
Canarygrass, reed – *Phalaris arundinacea*
Cattail - *Typha spp.*
Clover, red - *Trifolium pretense*
Clover, white - *Trifolium repens*
Cogongrass - *Imperata cylindrica*
Cordgrass - *Spartina spp.*
Cutgrass, giant* - *Zizaniopsis miliacea*
Dallisgrass - *Paspalum dilatatum*
Dandelion - *Taraxacum officinale*
Dock, curly - *Rumex crispus*
Dogbane, hemp – *Apocynum cannabinum*
Fescue - *Festuca spp.*
Fescue, tall - *Festuca arundinacea*
Guineagrass - *Panicum maximum*
Hemlock, poison - *Conium maculatum*
Horsenettle - *Solanum carolinense*
Horseradish - *Armoracia rusticana*
Ice Plant – *Mesembryanthemum crystallinum*
Johnsongrass - *Sorghum halepense*
Kikuyugrass - *Pennisetum clandestinum*
Knapweed - *Centaurea repens*
Lantana - *Lantana camara*
Lespedeza: common, serices – *Lespedeza striata*
Lespedeza cuneata
Loosestrife, purple - *Lythrum salicaria*
Lotus, American - *Nelumbo lutea*
Maidencane - *Panicum hematomon*
Milkweed - *Asclepias spp.*
Muhly, wirestem – *Muhlenbergia frondosa*
Mullein, common - *Verbascum thapsus*
Napiergrass - *Pennisetum purpureum*
Nightshade, silverleaf – *Solanum elaeagnifolium*
Nutsedge: purple, yellow – *Cyperus rotundus*
Cyperus esculentus
Orchardgrass - *Dactylis glomerata*
Pampasgrass - *Cortaderia jubata*
Paragrass - *Brachiaria mutica*
Phragmites** - *Phragmites spp.*
Quackgrass - *Agropyron repens*
Reed, giant - *Arundo donax*
Ryegrass, perennial - *Lolium perenne*
Smartweed, swamp – *Polygonum coccineum*
Spatterdock - *Nuphar luteum*
Starthistle, yellow – *Centaurea solstitialis*
Sweet potato, wild* - *Ipomoea pandurata*
Thistle, artichoke - *Cynara cardunculus*
Thistle, Canada - *Cirsium arvense*
Timothy - *Phleum pretense*
Torpedograss* - *Panicum repens*
Tules, common - *Scirpus acutus*
Vaseygrass - *Paspalum urvillei*
Velvetgrass - *Holcus spp.*
Waterhyacinth - *Eichornia crassipes*
Waterlettuce - *Pistia stratiotes*
Waterprimrose - *Ludwigia spp.*
Wheatgrass, western - *Agropyron smithii*

* Partial control.
** Partial control in southeastern states. See specific recommendations below.

Alligatorweed – Apply 6 pints of this product per acre as a broadcast spray or as a 1 ¼ percent solution with hand-held equipment to provide partial control of alligatorweed.

Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

Bermudagrass – Apply 7 ½ pints of this product per acre as a broadcast spray or as a 1 ½ percent solution with hand-held equipment. Apply when target plants are actively growing and when seedheads appear.

Bindweed, field/Silverleaf Nightshade/Texas Blueweed – Apply 6 to 7 ½ pints of this product per acre as a broadcast spray west of the Mississippi River and 4 ½ to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1 ½ percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

Brackenfern – Apply 4 ½ to 6 pints of this product per acre as a broadcast spray or as a ¾ to 1 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

Cattail – Apply 4 ½ to 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

Cogongrass – Apply 4 ½ to 7 ½ pints of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Cordgrass – Apply 4 ½ to 7 ½ pints of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment. Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of debris and silt on the cordgrass plants will reduce performance. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant.

Cutgrass, giant – Apply 6 pints of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment to provide partial control of giant cutgrass. Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7- to 10-leaf stage prior to retreatment.

Dogbane, hemp/Knapweed/Horseradish – Apply 6 pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.

Fescue, tall – Apply 4½ pints of this product per acre as a broadcast spray or a 1 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.

Guineagrass – Apply 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached at least 7-leaf stage of growth.

Johnsongrass/Bluegrass, Kentucky/Bromegrass, smooth/Canarygrass, reed/Orchardgrass/Ryegrass, perennial/Timothy/Wheatgrass, western – Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and most have

reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.
Lantana – Apply this product as a ¾ to 1 percent solution with hand-held equipment. Apply to actively growing Lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.
Loosestrife, purple – Apply 4 pints of this product per acre as a broadcast spray or as a 1 to 1½ percent solution using hand-held equipment. Treat when plants are actively growing at or beyond the boom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.
Lotus, American – Apply 4 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treats must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.
Maidencane/Paragrass – Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7- to 10-leaf stage prior to retreatment.
Milkweed, common – Apply 4½ pints of this product per acre as a broadcast spray or as a 1 ½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.
Nutsedge: purple, yellow – Apply 4 ½ pints of this product per acre as a broadcast spray, or as a ¾ percent solution with hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.
Pampasgrass – Apply a 1½ percent solution of this product with hand-held equipment when plants are actively growing.
Phragmites – For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 7½ pints per acre as a broadcast spray or apply a 1½ percent solution with hand-held equipment. In other areas of the U.S., apply 4 to 6 pints per acre as a broadcast spray or apply a ¾ percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.
Quackgrass/Kikuyugrass/Muhly, wirestem – Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment when most quackgrass or wirestem muhly is at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.
Reed, giant/ice plant – For control of giant reed and ice plant, apply a 1½ percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in later summer to fall.
Spatterdock – Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

Sweet potato, wild – Apply this product as a 1½ percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment.

Thistle: Canada, artichoke – Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2 percent solution as a spray to wet application. Apply when target plants are actively growing and are at or beyond the bud stage of growth.

Torpedograss – Apply 6 to 7½ pints of this product per acre as a broadcast spray or as a ¾ to 1 ½ percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

Tules, common – Apply this product as a 1½ percent solution with hand-held equipment. Apply to actively growing plants at or beyond the seedhead stage of growth. After application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.

Waterhyacinth – Apply 5 to 6 pints of this product per acre as a broadcast spray or apply a ¾ to 1 percent solution with hand-held equipment. Apply when target plants are actively growing and at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher rates when more rapid visual effects are desired.

Waterlettuce – For control, apply a ¾ to 1 percent solution using hand-held equipment to actively growing plants. Use higher rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring applications may require retreatment.

Waterprimrose – Apply this product as a ¾ percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

Other perennials listed on this label – Apply 4½ to 7½ pints of this product per acre as a broadcast spray or as a ¾ to 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product plus surfactant CONTROLS or PARTIALLY CONTROLS the following woody brush plants and trees:

Alder - *Altus spp.*
Ash* - *Fraxinus spp.*
Aspen, quaking - *Populus tremuloides*
Bearclover, Bearmat – *Chamaebatia foliolosa*
Birch - *Betula spp.*
Blackberry - *Rubus spp.*
Broom:
French - *Cytisus monspessulanus*
Scotch - *Cytisus scoparius*
Buckwheat, California* - *Eriogonum fasciculatum*
Cascara* - *Rhamnus purshiana*
Catsclaw* - *Acacia greggi*
Ceanothus - *Ceanothus spp.*
Chamise - *Adenostoma fasciculatum*
Cherry:
Bitter - *Prunus emarginata*
Black - *Prunus serotina*
Pin - *Prunus pensylvanica*
Coyote brush - *Bacharis consanguinea*
Creeper, Virginia* -

Parthenocissus quinquefolia
Dewberry - *Rubus trivialis*
Dogwood - *Cornus spp.*
Elderberry - *Sambucus spp.*
Elm* - *Ulmus spp.*
Eucalyptus, bluegum – *Eucalyptus globulus*
Hasardia* - *Haplopappus squamosus*
Hawthorn - *Crataegus spp.*
Hazel - *Corylus spp.*
Hickory - *Carya spp.*

Holly, Florida; Brazilian Peppertree - *Schinus terebinthifolius*
Honeysuckle - *Lonicera spp.*
Hornbeam, American – *Carpinus caroliniana*
Kudzu - *Pueraria lobata*
Locust, black* - *Robinia pseudoacacia*
Manzanita - *Arctostaphylos spp.*
Maple:
Red** - *Acer rubrum*
Sugar - *Acer saccharum*
Vine* - *Acer circinatum*
Monkey Flower* - *Mimulus guttatus*
Oak:
Black* - *Quercus velutina*
Northern pine - *Quercus palustris*
Post - *Quercus stellata*
Red - *Quercus rubra*
Southern Red - *Quercus falcate*
White* - *Quercus alba*
Persimmon* - *Diospyros spp.*
Poison Ivy - *Rhus radicans*
Poison Oak - *Rhus toxicodendron*
Poplar, yellow* - *Liriodendron tulipifera*
Prunus - *Prunus spp.*
Raspberry - *Rubus spp.*
Redbud, eastern - *Cercis canadensis*
Rose, multiflora - *Rosa multiflora*
Russian-olive - *Elaeagnus angustifolia*
Sage: black, white - *Salvia spp.*
Sagebrush, California – *Artemisia californica*
Salmonberry - *Rubus spectabilis*
Salt cedar* - *Tamarix spp.*
Saltbush, Sea myrtle – *Baccharis halimifolia*
Sassafras - *Sassafras aibidum*
Sourwood* - *Oxdendrum arboreum*
Sumac:
Poison* - *Rhus vernix*
Smooth* - *Rhus glabra*
Winged* - *Rhus copallina*
Sweet gum - *Liquidambar styraciflua*
Swordfern* - *Polystichum munitum*
Tallowtree, Chinese - *Sapium sebiferum*
Thimbleberry - *Rubus parviflorus*
Tobacco, tree* - *Nicotiana glauca*
Trumpetcreeper - *Campsis radicans*
Waxmyrtle, southern* - *Myrica cerifera*
Willow - *Salix spp.*

*Partial control
**See below for control or partial control instruction.
NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stage of growth.
Apply the recommended rate of this product plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution when plants are actively growing and, unless otherwise directed, after full-leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in later summer or fall after fruit formation.
In arid areas, best results are obtained when application is made in the spring or early summer when brush species are at high moisture content and are flowering. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear to frost or senescence with fall treatments.
Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no

major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.
See the "DIRECTIONS FOR USE" and "MIXING AND APPLICATION INSTRUCTIONS" sections in this label for labeled use and specific application instructions.
Applied as a 5 to 8 percent solution as a directed application as described in the "HAND-HELD AND HIGH-VOLUME EQUIPMENT" section, this product will control or partially control all species listed in this section of this label. Use the higher rate of application for dense stands and larger woody brush and trees.
Apply the product as follows to control or partially control the following woody brush and trees.
Alder/Blackberry/Dewberry/Honeysuckle/Oak, Post/Raspberry – For control, apply 4½ to 6 pints per acre as a broadcast spray or as a ¾ to 1¼ percent solution with hand-held equipment.
Aspen, Quaking/Hawthorn/Trumpetcreeper – For control, apply 3 to 4¼ pints of this product per acre as a broadcast spray or as a ¾ to 1¼ percent solution with hand-held equipment.
Birch/Elderberry/Hazel/Salmonberry/Thimbleberry – For control, apply 3 pints per acre of this product as a broadcast spray or as a ¾ percent solution with hand-held equipment.
Broom: French, Scotch – For control, apply a 1¼ to 1½ percent solution with hand-held equipment.
Buckwheat, California/Hasardia/Monkey Flower/Tobacco, Tree – For partial control of these species apply a ¾ to 1½ percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.
Catsclaw – For partial control, apply a 1¼ to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.
Cherry: Bitter, Black, Pin/Oak, Southern Red/Sweet Gum/Prunus – For control, apply 3 to 7½ pints of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.
Coyote brush – For control, apply a 1 ¼ to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.
Dogwood/Hickory/Salt cedar – For partial control, apply a 1 to 2 percent solution of this product with hand-held equipment or 6 to 7½ pints per acre as a broadcast spray.
Eucalyptus, bluegum – For control of eucalyptus resprouts, apply a 1½ percent solution of this product with hand-held equipment when resprouts are 6 to 12-feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought stressed plants.
Holly, Florida/Waxmyrtle, southern – For partial control, apply this product as a 1½ percent solution with hand-held equipment.
Kudzu – For control, apply 6 pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Repeat applications will be required to maintain control.
Maple, Red – For control, apply as a ¾ to 1¼ percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 2 to 7½ pints of this product per acre as a broadcast spray.
Maple, Sugar/Oak: Northern Pine, Red – For control, apply as a ¾ to 1¼ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison Ivy/Poison Oak – For control, apply 6 to 7½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Rose, multiflora – For control, apply 3 pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese – For control of these species, apply a ¾ percent solution with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Saltbush, Sea myrtle – For control, apply this product as a 1 percent solution with hand-held equipment.

Willow – For control, apply 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment.

Other woody brush and trees listed in this label – For partial control, apply 3 to 7½ pints of this product per acre as a broadcast spray or as a ¾ to 1½ percent solution with hand-held equipment.

AQUATIC AND OTHER NONCROP SITES

When applied as directed and under the conditions described in the "WEEDS CONTROLLED" section in this label, this product will control or partially control the labeled weeds growing in the following industrial, recreational and public areas or other similar aquatic and terrestrial sites. The combined total of all treatments must not exceed 8 quarts of this product per acre per year in terrestrial non-crop sites.

Aquatic Sites – This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, non-flowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas.

If aquatic sites are present in the noncrop area and are part of the intended treatment, read and observe the following directions:

This product does not control plants which are completely submerged or have a majority of their foliage under water.

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

NOTE: Do not apply this product directly to water within ½ mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within ½ miles of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does not apply to intermittent inadvertent overspray of water in terrestrial use sites.

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds. Floating Mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not re-treat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in water. When making any bankside applications, do not overlap more than 1 foot into open water. Do not spray in bodies of water where weeds do not exist. The maximum application rate of 7½ pints per acre must not be exceeded in any single broadcast application that is being made over water.

When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in fish kill.

Other Noncrop-Type Sites – This product may be used to control the listed weeds in terrestrial noncrop sites and/or in aquatic sites within these areas.

Airports	Parks
Golf Courses	Petroleum Tank Farms
Habitat Restoration & Management Areas	Pipeline, Power, Telephone & Utility Rights-of-Way
Highways & Roadsides	Pumping Installations
Industrial Plant Sites	Railroads
Lumberyards	Schools
Parking Areas	Storage Areas

WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS

This product is recommended for the restoration and/or maintenance of native habitat and in wildlife management areas.

Habitat Restoration and Maintenance – When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications may be made to allow recovery of native plant species, to open up water to attract water-fowl, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatments may be made to selectively remove unwanted plants for habitat enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots- This product may be used as site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product, or native species may be allowed to reinfest the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling to allow for maximum effectiveness.

WIPER APPLICATIONS

For wick or wiper applications, mix 1 gallon of this product with 2 gallons of clean water to make a 33 percent solution. Addition of a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended.

Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stand, a double application in opposite directions may improve results. See the "WEEDS CONTROLLED" section of this label for recommended timing, growth stage and other instructions for achieving optimum results.

CUT STUMP APPLICATION

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to freshly cut surface immediately after cutting. Delay in applying this product may result in reduced performance. For best results, trees should be cut during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product WILL CONTROL, PARTIALLY CONTROL, OR SUPPRESS most woody brush and tree species, some of which are listed below:

Alder - *Alnus spp.*
Coyote Brush* - *Baccharis consanguinea*
Dogwood* - *Cornus spp.*
Eucalyptus - *Eucalyptus*
Hickory* - *Carya spp.*
Madrone - *Arbutus menziesii*
Maple* - *Acer spp.*
Oak - *Quercus spp.*
Poplar - *Populus spp.*
Reed, giant - *Arundo donax*
Salt, Cedar - *Tamarix spp.*
Sweet gum - *Liquidambar styraciflua*
Sycamore - *Platanus occidentalis*

*This product is not approved for this use on these species in the State of California.

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill applications of this product. Apply this product using suitable equipment which must penetrate into living tissue. Apply the equivalent of 1 ml of this product per 2 to 3 inches of trunk diameter. This is best achieved by applying 25 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 dilute material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as these, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, applications should be made during periods of active growth and full leaf expansion.

This treatment WILL CONTROL the following woody species:

Oak - *Quercus spp.*
Poplar - *Populus spp.*
Sweet Gum - *Liquidambar styraciflua*
Sycamore - *Plantanus occidentalis*

This treatment WILL SUPPRESS the following woody species:

Black gum* - *Nyssa sylvatica*
Dogwood - *Cornus spp.*
Hickory - *Carya spp.*
Maple, red - *Acer rubrum*

*This product is not approved for this use on this species in the State of California.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS ON NONCROP SITES

RELEASE OF DORMANT BERMUDAGRASS AND BAHIAGRASS

When applied as directed, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Make applications to dormant bermudagrass or bahiagrass.

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

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below.
Apply the recommended rates of this product in 10 to 25 gallons of water per acre plus 2 quarts of nonionic surfactant per 100 gallons of total spray volume.
WEEDS CONTROLLED OR SUPRESSED*
NOTE: C= Control S = Suppression

GLYPHO 648 HERBICIDE (FLUID OZ/ACRE)						
WEED SPECIES	6	9	12	18	24	48
Barley, little *Hordeum pusillum*	S	C	C	C	C	C
Bedstraw, catchweed *Galium aparine*	S	C	C	C	C	C
Bluegrass, annual *Poa annua*	S	C	C	C	C	C
Chervil *Chaerophyllum tainturieri*	S	C	C	C	C	C
Chickweed, common *Stellaria media*	S	C	C	C	C	C
Clover, crimson *Trifolium incarnatum*	*	S	S	C	C	C
Clover, large hop *Trifolium compestre*	*	S	S	C	C	C
Speedwell, corn *Veronica arvensis*	S	C	C	C	C	C
Fescue, tall *Festuca arundinacea*	*	*	*	*	S	S
Geranium, Carolina *Geranium caroliniaum*	*	*	S	S	C	C
Henbit *Lamium amplexicaule*	*	S	C	C	C	C
Ryegrass, Italian *Lolium multiflorum*	*	*	S	C	C	C
Vetch, common *Vicia sativa*	*	*	S	C	C	C

*These rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS
NOTE: USE ONLY ON SITES WHERE BAHIAGRASS OR BERMUDAGRASS ARE DESIRED FOR GROUND COVER AND SOME TEMPORARY INJURY OR YELLOWING OF THE GRASSES CAN BE TOLERATED.
When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section in this label, and suppression or partial control of certain perennial weeds.
For control or suppression of those annual species listed in this label, use ¾ to 2¼ pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre, plus 2 quarts of a nonionic surfactant per 100 gallons of total spray volume. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual

vines). Use the higher rate as size of plants increases or as they approach flower or seedhead formation.
Use the higher rate for partial control or longer-term suppression of the following perennial species. Use lower rates for shorter-term suppression of growth.

Bahiagrass	Johnsongrass**
Dallisgrass	Trumpetcreeper*
Fescue (tall)	Vaseygrass

*Suppression at the higher rate only.
**Johnsongrass is controlled at the higher rate.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.
BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION
When applied as directed in the "NONCROP SITES" section in this label, this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.
Apply this product 1 to 2 weeks after full green-up of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 5 fluid ounces per acre of this product, plus 2 quarts of an approved nonionic surfactant per 100 gallons of total spray volume in 10 to 25 gallons of water per acre.
Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued vegetative growth suppression, sequential applications must be made prior to seedhead emergence.
Apply no more than 2 sequential applications per year. As a first sequential application, apply 3 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 3 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.
ANNUAL GRASS GROWTH SUPPRESSION
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 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES for annual weeds
Glypho 648 plus Banvel or dicamba plus nonionic surfactant
Glypho 648 Herbicide plus 2,4-D plus nonionic surfactant
DO NOT APPLY BANVEL, DICAMBA OR 2,4-D TANK MIXTURES BY AIR IN CALIFORNIA. These tank mixtures are recommended for use in fallow and reduced tillage areas only.
This product may be tank-mixed with the listed herbicides provided the specific product is registered for use on these sites.

Provided that the Glypho 648 rate is at least 9 fluid ounces per acre, these tank mixtures will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights plus the following broadleaf weeds.
NOTE: Refer to the specific product labels for crop rotation restrictions and precautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel or dicamba is applied within 45 days of planting. The addition of Banvel or dicamba in a mixture with this product may provide short-term residual control of selected weed species.
Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel or dicamba, or 0.5 pound a.i. of 2,4-D, plus 0.375 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

Cocklebur (12") - *Xanthium strumarium*
Kochia*(6") - *Kochia scoparia*
Lambsquarters (12") – *Chenopodium album*
Lettuce, prickly (6") - *Lactuca serriola*
Marestail/Horseweed (6") – *Conyza canadensia*
Morningglory (6") - *Ipomoea* spp.
Pigweed redroot (12") – *Amaranthus retroflexus*
Pigweed smooth (12") – *Amaranthus hybridus*
Thistle, Russian (12") - *Salsola kali*

*Controlled with Banvel or dicamba tank mixture only.

Apply 12 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.
Ragweed, common *Ambrosia artemisiifolia*
Ragweed, giant *Ambrosia trifida*
Smartweed, Pennsylvania *Polygonum pensylvanicum*
Velvetleaf *Abutilon theophrasti*

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS
When applied as directed for "NONCROP USES", under conditions described, this product may be used to control the listed weeds in terrestrial non-crop sites and/or in aquatic sites within these areas:

Airports
Around Farm, Ranch, Commercial or Industrial Structures
Around Ornamental Gardens
Around Ornamental Trees & Shrubs
Driveways & Ramps
Fences & Fencerows
Golf Courses
Gravel or Ground Bark Mulches
Habitat Restoration & Management Areas
Highways & Roadsides (including aprons, medians & guardrails)
Industrial Plant Sites
Lanes, Trails & Access Roads
Lumberyards
Parking Areas
Parks
Petroleum & Other Tank Farms
Pumping Installations
Pipeline, Power, Telephone & Utility Rights-of-Way
Preplant to Turf & Ornamental Plants
Railroads
Schools
Sidewalks
Storage Areas
Uncropped Farmstead Areas
Utility Substations
Vacant Lots & Wastelands

This product is a nonselective herbicide that is diluted and applied to the foliage of actively growing weeds as a spot or broadcast application. It is absorbed by the leaves and moves throughout the stem and roots to control the entire plant. Visible symptoms may require a week or more to appear, with burndown usually occurring in 2 to 4 weeks. Symptoms are a gradual wilting and yellowing of the sprayed plant followed by deterioration of both shoots and roots. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation. Any ornamental species may be planted in treated areas 7 days or more after application. For most effective results, delay mowing, clipping, tilling, planting, or sodding of treated areas for at least 7 days after application. This allows time for this product to move within the plant.

For specific rates of application and instructions for control of particular annual weeds, perennial weeds, woody brush and trees, see the "WEEDS CONTROLLED" section of this label. These applications may be made to large affected areas or as spot treatments. For general use in small areas, see alternative instructions below under "Small Area Treatment with Hand-Held Sprayers".
Unless the "Agricultural Use Requirements" on this label are observed, the following restrictions apply:
Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in ornamental gardens or parks, or on golf courses or lawns and grounds.
THIS PRODUCT CAN INJURE OR DESTROY ALL VEGETATION CONTACTED. WHEN USED AS A SPOT TREATMENT IN LAWNS, ALL VEGETATION CONTACTED WILL BE DAMAGED. AVOID SPRAY DRIFT CONTACT WITH DESIRABLE LAWN GRASSES, FLOWERS, VEGETABLES, SHRUBS OR TREES. DO NOT CONTACT GREEN BARK OF TREES OR SHRUBS. IF DESIRABLE VEGETATION IS CONTACTED, WASH IMMEDIATELY WITH WATER.
Depending on the type of noncrop application, this product may be applied with boom equipment, high-volume spray equipment and hand-held sprayers as described in the respective portions of the "APPLICATION EQUIPMENT and TECHNIQUES" section of the label. Additionally, the product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the "Selective Equipment" part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.
Small Area Treatment With Hand-held Sprayers – Add 2¼ to 4½ fluid ounces of this product plus 0.375 fluid ounce of nonionic surfactant to 1 gallon of clean water. Use the lower rate for many grasses and annual weeds. Use the higher recommended rate for control of perennials and brush. Use pump-up sprayer, backpack sprayer or other spray suitable for small areas. Adjust equipment to deliver a coarse spray pattern. USE OF HOSE-END SPRAYERS OR SPRINKLER-TYPE DEVICES MAY RESULT IN POOR AND/OR ERRATIC RESULTS.

TANK MIXTURES for NONCROP SITES
When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels. This product may be tank-

mixed with the listed herbicides provided the specific product is registered for use on these sites:

Glypho 648 plus diuron
Glypho 648 plus Krovar™I, Krovar II
Glypho 648 plus Princep™ Caliber™ 90, Simazine 4L, 80W or 90DF
Glypho 648 plus Surflan™ 75W, Surflan AS
Glypho 648 plus Ronstar™ 50WP
When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.375 percent by volume of spray solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label before preparing these tank mixtures.
Read and carefully observe the label claims, precautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

Note: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.
Annual Weeds – Apply 1½ pints per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 2 ¼ pints per acre when weeds are more than 6 inches tall.
Perennial Weeds – For partial control of perennial weeds using these tank mixtures, apply 1 ½ to 7 ½ pints per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.
Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as they may result in reduced weed control.

TANK MIXTURE FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATION

Glypho 648 Herbicide plus Oust™
Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where are ground is desired.
This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of this label for this product and Oust, and control or partial control of the perennial weeds listed below.
Apply 1 ½ to 3 pints of this product to 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.
This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.
This product plus Oust tank mixture may not be applied by air in California.

For control of annual weeds, use the lower rates of these products. For control of listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass *Paspalum notatum*
Bermudagrass* *Cynodon dactylon*
Broomsedge *Andropogon viginicus*
Dogfennel *Eupatorium capilliforium*
Fescue, tall *Festuca arundinacea*
Johnsongrass** *Sorghum halepense*
Quackgrass *Agropyron repens*
Trumpetcreeper* *Campsis radicans*
Vaseygrass *Paspalum urvillei*
Dock, curly *Rumex crispus*
Poorjoe** *Diodia teres*
Vervain, blue *Verbena hastata*

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

Read and carefully observe the precautionary statements and all other information appearing on the labels of all herbicides used.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. For specific rates of application for release of listed coniferous species, see the "CONIFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 8 quarts of this product per acre per year.

Aerial Application – This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air.

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

To reduce the aerial application drift hazard to aquatic sties*, to nontarget sites or any site containing desirable vegetation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

*Helicopters using a Microfoil™boom, a Thru-Valve™boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-foot buffer zone.

*When using other aerial equipment:

1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground level.

These distances should be increased if conditions favoring drift exist.

*Aquatic sites including all lakes, ponds, and streams used for significant domestic purposes or angling.

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation of target weeds or trees should not be disturbed prior to 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 prior to 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 weeds listed in the "WEEDS CONTROLLED" section of this label. For release of the following conifer species:

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

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

Apply 2 ¼ to 3 pints 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 ½ to 2 ¼ pints of this product per acre before any major leaf drop of deciduous species. Add 10 oz. nonionic surfactant per 2 pints of Glypho 648 Herbicide.

Note for Douglas Fir release: Ensure that surfactant has been adequately tested for Douglas Fir safety and follow manufacturer's recommendations for rate of application.

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 2 ¼ to 3 pints of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release loblolly pine, eastern white pine and slash pine by reducing competition from the following species:

Ash *Fraxinus* spp.
Cherry, Black *Prunus serotina*
Cherry, Pin *prunus pensylvanica*
Elm *Ulmus* spp.
Hawthorn *Crataegus* spp.
Maple, red *Acer rubra*
Locust, black *Robina pseudoacacia*
Oak, Black *Quercus velutina*
Oak, Post *Quercus stellata*
Oak, Southern Red *Quercus falcata*

Oak, White *Quercus alba*
Persimmon *Diospyros* spp.
Poplar, yellow *Liriodendron tulipfera*
Sassafras *Sassafras albidum*
Sourwood *Oxydendrum arboreum*
Sumac, Poison *Rhus vernix*
Sumac, Smooth *Rhus glabra*
Sumac, Winged *Rhus copallin*
Sweetgum *Liquidambar styraciflua*

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

Glypho 648 plus Oust Tank Mixtures for Conifer Release from Herbaceous Weeds

To release loblolly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 12 to 18 fluid ounces of this product plus 10 fluid ounces nonionic surfactant per quart Glypho 648 with 2 to 4 ounces of Oust 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 tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre. This product plus Oust tank mixtures may not be applied by air in California.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower 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*

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

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, or are in an active growth stage.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species is likely.

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

WIPER APPLICATIONS

For wick or wiper applications, mix 1 gallon of this product with 2 gallons of clean water to make a 33 percent solution. Addition of a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended.

Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stands, a double application in opposite directions may

improve results. See the "WEEDS CONTROLLED" section of this label for recommended timing, growth stage and other instructions for achieving optimum results.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation 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, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPRESS many types of woody brush and tree species, some of which are listed below:

Alder *Alnus* spp.
Coyote brush *Baccharis consanguinea*
Dogwood *Cornus* spp.
Eucalyptus *Eucalyptus* spp.
Hickory *Carya* spp.
Madrone *Arbutus menziesii*
Maple *Acer* spp.
Oak *Quercus* spp.
Poplar *Populus* spp.
Reed, giant *Arundo donax*
Salt cedar *Tamarix* spp.
Sweet gum *Liquidambar stryaciflua*
Sycamore *Platanus occidentalis*
Tan oak *Lithocarpus densiflorus*
Willow *Salix* spp.

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 25 to 100 percent concentration of this material 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 cutting. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

Control
Oak *Quercus* spp.
Poplar *Populus* spp.
Sweet gum *Liquidambar styraciflua*
Sycamore *Platanus occidentalis*

Suppression
Black gum *Nyssa sylvatica*
Dogwood *Cornus* spp.
Hickory *Carya* spp.
Maple, red *Acer rubrum*

ORNAMENTALS TREE NURSERIES AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

Note: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

When applied as instructed for the conditions described for "NONCROP USES", this product controls undesirable vegetation listed on this label prior to planting, within and

around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees.
For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. Where repeat applications are necessary, do not exceed 8 quarts of this product per acre per year.
Site Preparation – Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.
Greenhouse/Shadehouse Use – This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.
Postdirected Spray – Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bark of established ornamental species.

Arborvitae *Thuja* spp.
Azalea *Rhododendron* spp.
Crabapple *Malus* spp.
Euonymus *Euonymus* spp.
Fir *Abies* spp., *Pseudotsuga* spp.
Jojoba *Simmondsia chinensis*
Hollies *Ilex* spp.
Lilac *Syringa* spp.
Magnolia *Magnolia* spp.
Maple *Acer* spp.
Oak *Quercus* spp.
Privet *Ligustrum* spp.
Pine *Pinus* spp.
Spruce *Picea* spp.
Yew *Taxus* spp.

WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS
This product is recommended for the restoration and/or maintenance of native habitat and in wildlife management areas.
Habitat Restoration and Maintenance – When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications may be made to allow recovery of native plant species, to open up water to attract waterfowl, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatments may be made to selectively remove unwanted plants for habitat enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.
Wildlife Food Plots – This product may be used as a site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product, or native species may be allowed to reinfest the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling to allow for maximum effectiveness.
FARMSTEAD WEED CONTROL
When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.
For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEED CONTROLLED" section of this label.
FARM DITCHES
This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 4 ½ to 6 fluid ounces per acre. Use 6 fluid ounces per acre when treating tall

(coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 4 ½ fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre plus nonionic surfactant to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles. Add a nonionic surfactant at a rate of 0.375 percent of the spray solution. Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. CRP applications may be made with wiper applicators or conventional spray equipment.

For selective applications with broadcast spray equipment, apply 9 to 12 ounces per acre of this product plus nonionic surfactant 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. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

DORMANT RANGELAND

This product will control or suppress many weeds, including downy brome, cheat grass, cereal rye, medusahead rye and jointed goatgrass in dormant rangeland.

Apply 6 to 12 ounces per acre of this product in the early spring when the weeds have greened up, but desirable grasses, such as crested and tall wheatgrass are still truly dormant. Add nonionic surfactant at 2 quarts per 100 gals. spray solution.

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.

TURFGRASSES AND GRASSES GROWN FOR SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label. Add nonionic surfactant at 2 quarts per 100 gal spray solution.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth listed in the "WEEDS CONTROLLED" section of this label.
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.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label prior to planting or renovation of turf or forage grass areas grown for seed production. DO NOT feed or graze treated areas within 8 weeks after application.
ANNUAL WEED CONTROL IN DORMANT BERMUDAGRAS AND BAHIAGRASS TURF
When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 12 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of this product plus Oust in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS ON NONCROP SITES DORMANT BERMUDAGRASS AND BAHIAGRASS

Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.
When applied as directed, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Make applications to dormant bermudagrass or bahiagrass.
This product may be tank-mixed with Oust as recommended for residual control. Use tank mixtures of this product plus Oust™ only on railroads, highways, utility plant sites, or other right of way areas. Make application using this tank-mix only to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus Oust may delay greenup. To minimize greenup delay and injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.
For best results on winter annuals, treat when weeds are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4 to 6-leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below. Apply the recommended rates of this product in 10 to 25 gallons of water per acre plus 2 quarts nonionic surfactant per 100 gallons of total spray volume.

WEEDS CONTROLLED OR SUPPRESSED*

(C = Control S = Suppression)

WEED SPECIES fluid ounces per acre		6	9	12	18	24	48
Barley, little	*Hordeum pusillum*	S	C	C	C	C	C
Bedstraw, catchweed	*Galium aparine*	S	C	C	C	C	C
Bluegrass, annual	*Poa annua*	S	C	C	C	C	C
Chervil	*Chaerophyilum tainturieri*	S	C	C	C	C	C
Chickweed, common	*Stellaria media*	S	C	C	C	C	C
Clover, crimson	*Trifolium incarnatum*	*	S	S	C	C	C
Clover, large hop	*Trifolium campestre*	*	S	S	C	C	C
Speedwell, corn	*Veronica arvensis*	S	C	C	C	C	C
Fescue, tall	*Festuca arundinacea*	*	*	*	*	S	S
Geranium, Carolina	*Geranium carolinianum*	*	*	S	S	C	C
Henbit	*Lamium amplexicaule*	*	S	C	C	C	C
Ryegrass, Italian	*Lolium multiflorum*	*	*	S	C	C	C
Vetch, common	*Vicia sativa*	*	*	S	C	C	C

*These rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

NOTE: USE ONLY ON SITES WHERE BAHIAGRASS OR BERMUDAGRASS ARE DESIRED FOR GROUND COVER AND SOME TEMPORARY INJURY OR YELLOWING OF THE GRASSES CAN BE TOLERATED.

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section of this label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed in this label, use ¾ to 2 ¼ pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre, plus 2 quarts of a nonionic surfactant per 100 gallons of total spray volume. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as size of plants increases or as they approach flower or seedhead formation.

Use the higher rate for partial control or longer-term suppression of the following perennial species. Use lower rates for shorter-term suppression of growth.

Bahiagrass
Dallisgrass
Fescue (tall)
Johnsongrass**
Trumpetcreeper*
Vaseygrass

*Suppression at the higher rate only.

**Controlled at the higher rate.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the "NONCROP SITES" section in this label, this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full green-up of bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence.

Apply 5 fluid ounces per acre of this product, plus 2 quarts of an approved nonionic surfactant per 100 gallons of total spray volume in 10 to 25 gallons of water per acre. Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued vegetative growth suppression, sequential applications must be made prior to seedhead emergence.

Apply no more than 2 sequential applications per year. As a first sequential application, apply 3 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 3 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

ANNUAL GRASS GROWTH SUPPRESSION

For growth suppression of some annual grasses, such as annual ryegrass, wild barely and wild oats growing in coarse turf on roadside or other industrial areas, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Applications should be made when annual grasses are actively growing and before the seedhead are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label. In-crop application to Roundup Ready soybeans and cotton can be made according to the directions given in those respective sections below.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information. See the following "CROPPING SYSTEMS" sections for specific recommended uses. Unless otherwise specified below, add nonionic surfactant at 0.5 to 1 percent of spray volume.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIREABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions on this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 6 quarts per acre of this product per year. For application to tree, vine or shrub crops the combined total of all treatments must not exceed 8 quarts of this product per acre per year.

For any crop not listed below, applications must be made at least 30 days prior to planting.

Do not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

ROW CROPS
CORN (ALL)*
COTTON*
PEANUTS
SORGHUM (MILO)*
SOYBEANS*
SUGARCANE*

CITRUS
CALAMONDIN
CHIRONJA
CITRON
GRAPEFRUIT
KUMQUAT
LEMON
LIME
MANDARIN ORANGE
ORANGE (ALL)
TANGELO
TANGERINE
TANGORS
PUMMELO

TREE NUTS
ALMOND
BEECHNUT
BRAZIL NUT
BUTTERNUT
CASHEW
CHESTNUT
CHINQUAPIN
FILBERT (HAZELNUT)
HICKORY NUT
MACADAMIA
PECAN
PISTACHIO
WALNUT (BLACK, ENGLISH)

CEREAL GRAINS
BARLEY*
BUCKWHEAT*
MILLET (PEARL, PROSO)*
OATS*
RICE**
RYE*
TRITICALE*
WHEAT (ALL)*
WILD RICE*

VEGETABLES
ARTICHOKE, JERUSALEM
ASPARAGUS*
BEANS (ALL)
BEET GREENS
BEETS (RED, SUGAR)
BROCCOLI (ALL)
BRUSSEL SPROUTS
CABBAGE (ALL)
CABBAGE, CHINESE
CANTALOUPE***
CAULIFLOWER
CASABA MELON***
CELERIAC
CELERY
PEPPER (ALL)***
CHICORY
COLLARDS
CUCUMBER***
EGGPLANT***
ENDIVE
GARLIC***
GOURDS***
GROUND CHERRY***
HONEYDEW MELON***
CHARD, SWISS
CARROT
HONEY BALL MELON***
HORSERADISH
KALE
KOHLRABI
LEEK
LENTILS
LETTUCE
MANGO MELON***
MEONS (ALL)***
MUSKMELON***
MUSTARD GREENS
OKRA
ONION
PARSLEY
PARSNIPS
PEAS (ALL)
PERSIAN MELON ***
POTATO (IRISH, SWEET)
PUMPKIN***
RADISH
RAPE GREENS
RHUBARB
RUTABAGA
SHALLOT
SPINACH (ALL)
CRENSHAW MELON***
SQUASH (SUMMER, WINTER)***
TOMATILLO***+
TURNIP

WATERCRESS***
WATERMELON***
YAMS

VINE CROPS
GRAPES
KIWI FRUIT

TREE FRUITS
APPLE
APRICOTS
CHERRY (SWEET, SOUR)
LOQUAT
MAYHAW
NECTARINE
OLIVE
PEACH
PEAR
PLUM/PRUNE (ALL)
QUINCE

SMALL FRUITS AND BERRIES
BLACKBERRY
BLUEBERRY
BOYSENBERRY
CRANBERRY
CURRANT
DEWBERRY
ELDERBERRY
GOOSEBERRY
HUCKLEBERRY
LOGANBERRY
OLALLIBERRY
RASPBERRY (BLACK, RED)

FORAGE CROPS AND LEGUMES
ALFALFA*
FORAGE GRASSES*
FORAGE LEGUMES*

TROPICAL CROPS
ACEROLA
ATEMOYA
AVOCADO
BANANA (PLAINTAINS)
BREADFRUIT
CANISTEL
CARAMBOLA
CHERIMOYA
COCOA BEANS
COFFEE
DATES
FIGS
GENIP
GUAVA
JABOTICABA
JACKFRUIT
LONGAN
LYCHEE
MANGO
PAPAYA
PASSION FRUIT
PERSIMMONS
PINEAPPLE****
POMEGRANATE
SAPODILLA
SAPOTE (BLACK, MAMEY, WHITE)
GUAVA
SOURSOP

*Spot treatments may be applied in these crops.
**Do not treat rice fields or levees when the fields contain flood water.
***Apply only prior to planting. Allow at least 3 days between application and planting.
****Do not feed or graze pineapple forage following application.
+Use is restricted to direct seeded crops only.

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.
Spot Treatment (Only those crops with "*" can be spot treated.) - Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or boll opening of cotton.

For forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.
For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.
NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.
THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.
Selective Equipment – This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).
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.
Pre-Harvest Interval: Allow at least the following time intervals between application and harvest:

Cotton, Soybeans	7 days
Apples, Citrus, Pear	1 day
Atemoya, Avocado, Breadfruit, Canistel, Carambola, Cherry, Grapes, Dates, Jaboticaba, Jackfruit, Longan, Lychee, Passion Fruit, Persimmons, Rutabagas, Sapodilla, Spatoe, Soursop, Sugar, Apple, Tamarind	14 days
Stone Fruit	17 days
Nut Crops, except pistachios	3 days
Pistachio nuts	21 days
Wheat[1]	35 days
Sorghum (milo) [1,2]	40 days

[1] Do not use roller applicators.
[2] Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

ASPARAGUS
When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus.
For specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. Add nonionic surfactant at 0.5 to 1 percent by total spray volume.
Prior to Crop Emergence – Apply this product prior to crop emergence for the control of emerged annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.
Spot Treatment – Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest – Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators – Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution. Add nonionic surfactant at 0.5 to 1 percent by total spray volume.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage.

CORN

TYPES OF CORN: Field corn, seed corn, sweet corn and popcorn.

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, hooded sprayers, spot treatment, preharvest, post-harvest.

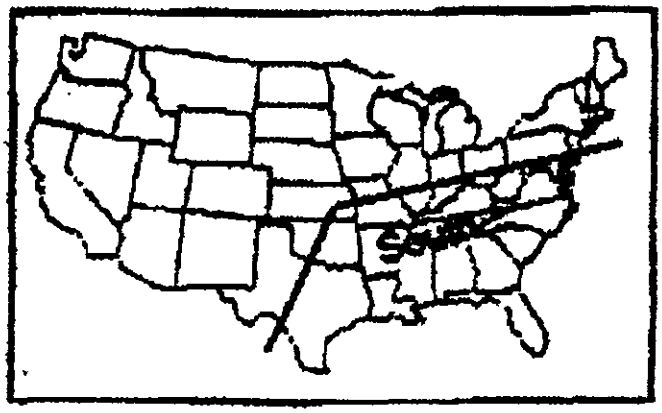
Add an agriculturally approved nonionic surfactant at 0.375 percent by volume of spray solution. Adding 1 to 2 percent by weight of dry ammonium sulfate (or equivalent from other formulations) may increase the performance of this product.

Preplant, Preemergence and At-planting – This product may be applied before, during or after planting corn. Applications must be made prior to emergence of the crop.

Subject to any limitations stated on the labeling of specific products, the following tank mixtures may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

ATRAZINE	BROADSTRIKE®
BANVEL®/Dicamba	BULLET®
BICEP®	DUAL®
BICEPII	DUAL II
BLADEX®/Cyanazine	EXTRAZINE®

FRONTIER®
GUARDSMAN®
HARNESS®/Acetochlor
HARNESS XTRA
HARNESS EXTRA 5.6L
LARIAT®
LASSO®/Alachlor
LINEX®
LOROX®/Linuron
MARKSMAN®/Atrazine + Dicamba
MICRO-TECH®
PARTNER®
PROWL®/Pendimethalin
SIMAZINE
SURPASS®/Acetochlor
SURPASS 100
TOPNOTCH®



For Southern states (see map as a guide), do not apply in nitrogen solutions to tough-to-control grasses such as barnyardgrass, tall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds.
For improved burndown, this product may be tank mixed with 2,4-D (Weedar®, Weedone®, and others) or dicamba.
For difficult-to-control annual weeds such as tall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 24 ounces per acre in those tank mixtures. For other labeled annual weeds, apply 12 to 18 ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 ounces of this product when weeds are over 6 inches tall.
Do not plant corn until at least 7 days after application of 2,4-D or dicamba.
The tank mix recommendations in this section are not registered in California.
Hooded Sprayers – 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.
A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. 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. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.
When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flags of the hoods to reach the ground in deep furrows.

Follow these requirements:
The spray hoods must be operated on the ground or skimming across the ground.
Do not apply more than 24 ounces of this product per acre per application.
Corn must be at least 12 inches tall, measured without extending leaves.
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 mph.
Maximum wind speed: 10 mph.
Use low-drift nozzles.
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.
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.
For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of the label booklet.
Do not graze or feed corn forage following applications of this product through hooded sprayers.
Do not apply more than 4 ½ pints of this product per acre per year for hooded sprayer applications.
Spot treatment – For spot treatments, apply this product prior to silking of corn.
Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.
Preharvest – Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and corn is physiologically mature (black layer formed). For ground applications, apply 4 ½ pints of this product per acre. For aerial applications, apply up to 24 ounces of this product per acre.
Allow a minimum of 7 days between application and harvest. It is not recommended that corn grown for seed be treated preharvest because a reduction in germination or vigor may result.
Post-harvest – This product may be applied after harvest of corn. Higher recommended 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.
Do not harvest or feed treated vegetation for 8 weeks following application.

POSTEMERGENCE APPLICATIONS TO CORN WITH THE ROUNDUP READY® GENE

General Information

LOVELAND PRODUCTS, INC. RECOMMENDS USE OF THIS PRODUCT ONLY ON CORN HYBRIDS DESIGNATED AS CONTAINING THE ROUNDUP READY GENE.
Applying this product to corn hybrids which are not designated as Roundup Ready will result in severe crop injury and yield loss.
The Roundup Ready designation indicates that the corn contains a patented gene which provides tolerance to this herbicide. Information on Roundup Ready corn may be obtained from your seed supplier or Loveland Products, Inc. representative.

Application 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. Single in-crop applications of this product are not to exceed 24 fluid ounces per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 48 fluid ounces per acre per growing season.

Maximum Allowable Yearly Rates:

Preplant: Maximum amount of this product which can be applied prior to crop emergence is 7 ½ pints per acre.

In-crop: Maximum combined total of multiple in-crop applications from emergence through the V8 stages or 30 inches is 48 fluid ounces per acre.

Preharvest: Maximum amount of this product that can be applied after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest is 24 fluid ounces per acre.

Cropping Season: Combined total per year for all applications may not exceed 12 pints per acre.

When applied as directed, this product controls labeled annual grasses and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product. Applications should be made to actively growing weeds before they reach the maximum size listed in the label booklet. Refer to the label booklet for proper use instructions.

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 when tank mixed with Bullet®, Micro-Tech® or Partner® herbicides. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray systems with clean water after use to reduce corrosion. The addition of other additives, including fertilizers and micronutrients is not recommended with this product since they may result in increased potential for crop injury.

Allow a minimum of 50 days between application of the product and harvest of corn forage and 7 days between application and harvest of corn grain.

Allow a minimum of 10 days between in-crop applications of this product. There are no rotational crop restrictions following applications of this product.

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 ROUNDUP READY GENE.

THOROUGHLY CLEAN THE SPRAY TANK AND ALL LINES AND FILTERS TO ELIMINATE POTENTIAL CONTAMINATION FROM OTHER HERBICIDES PRIOR TO MIXING AND APPLYING THIS PRODUCT.

For ground applications: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select correct nozzles and spray pressure to avoid spraying a fine mist. Check for even distribution of spray droplets.

For aerial applications: Use the recommended rates of this product in 3 to 15 gallons of spray solution per acre but do not exceed 1 quart of product per acre. Refer to label booklet for weeds controlled or suppressed. AVOID DRIFT – DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT. DRIFT MAY CAUSE

DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Weed Control Recommendations

Apply 18 to 24 fluid ounces of this herbicide per acre for control of labeled grasses and broadleaf weeds in conventional and no-till corn production systems. Refer to the label booklet for rate recommendations for specific annual weeds. Up to 24 fluid ounces per acre will control or suppress the growth of perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly. For additional information on perennial weeds, see the label booklet.

Preemergence followed by Postemergence Weed Control Program: This product may be applied postemergence in-crop following any labeled preemergence herbicide application. The post application of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop. A single in-crop application of this product at the recommended rate will provide control of emerged weeds listed on the label. 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 (free standing), whichever comes first.

Postemergence Only Weed Control Program: This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on the label. The postemergence application of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop. If new flushes of weeds occur, a sequential application of this product at 24 to 32 fluid ounces per acre will control the labeled grasses and broadleaf weeds. This product may be applied postemergence to Roundup Ready corn from emergence through the V8 stage or until corn height reaches 30 inches (free standing), whichever comes first.

This product may be tank-mixed with the products listed provided the product tank-mixed is registered for use on this (these) sites.

This product may be applied in a tank mixture with a labeled rate of Harness, Harness Xtra, Harness Xtra 5.6L, Micro-Tech, Bullet, Partner, Permit or atrazine. Refer to the specific product label and observe all precautions and limitations on the labels for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines – the more restrictive requirements apply. Tank mixtures with other products may result in increased potential for crop injury and/or weed antagonism. Refer to the table below for height limitation for tank mix partner.

Tank Mix Partner	**Maximum Height of Corn For Application**
Harness Harness Xtra Harness Xtra 5.6L	11 inches
Bullet* Micro-Tech*	5 inches

Partner*	
Permit	24 inches
Atrazine	12 inches

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

POSTEMERGENCE APPLICATIONS TO COTTON WITH THE ROUNDUP READY® GENE

General Information

LOVELAND PRODUCTS, INC. RECOMMENDS GLYPHO 648 HERBICIDE FOR USE ONLY OVER-THE-TOP OF OR DIRECTED ONTO IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS COTTON WITH THE ROUDUP READY GENE.

*Severe injury or death of cotton will result if any cotton varieties not properly designated as having the Roundup Ready gene are sprayed with this product. Avoid contact of herbicide with foliage, green stems, or fruit of crops, or any desirable plants and trees, other than crops with the Roundup Ready gene, since severe injury or destruction will result.

*The Roundup Ready designation indicates that the cotton contains a patented gene which provides tolerance to glyphosate herbicides.

Information on Roundup Ready cotton may be obtained from your seed supplier.

Application Instructions

This product will control many troublesome weeds with over-the-top, post-directed, hooded sprayer, or preharvest applications in Roundup Ready cotton. Add 0.375 percent nonionic surfactant by total spray volume.

Maximum Allowable Yearly Rates

Combined total per year for all applications	6 quarts per acre
Preplant, Preemergence applications	3 ¾ quarts per acre
Total in-crop applications from cracking to layby	3 quarts per acre
Maximum preharvest application rates	1 ½ quarts per acre.

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 or spray droplets.

For aerial application: apply this product in 3 to 15 gallons of water per acre.

DO NOT EXCEED A MAXIMUM RATE OF 1 ½ PINTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE ROUNDUP READY GENE. Do not apply during low-level inversion conditions, when winds are gusty or under any other conditions which favor 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.

There are no rotational crop restrictions following applications for this product.
Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready cotton. Following the cleaning procedures specified on the label of the product(s) previously used. Cotton is very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.
Glypho 648 Herbicide can be used in Roundup Ready cotton in the following applications.
Over-the-top applications: This product may be applied by aerial or ground application equipment postemergence to Roundup Ready cotton from the ground cracking stage until the four leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the four leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss. Any single over-the-top broadcast application should not exceed 1 quart per acre. No more than two over-the-top broadcast applications may be made from crop emergence through the four leaf (node) stage of development. Sequential over-the-top applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.
NOTE: Always plant into a weed free seedbed. In no-till and stale seedbed systems, always burn down existing weeds before cotton emerges. Apply a preplant burndown treatment of 12 to 36 fluid ounces per acre of this product.
Post-directed or hooded applications: This product may be applied using precision post-directed or hooded sprayers to Roundup Ready cotton through layby. At this stage, post-directed equipment should be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves should be avoided 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). Any single post-directed applications should not exceed 1 quart per acre of this product. No more than two applications should be made from the fifth leaf through layby. Sequential in-crop applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.
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.
Salvage Treatment: This treatment may be used after the four leaf stage of development and should only be used where weeds threaten to cause the loss of crop. One and one-half pints 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 weeds. NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED

MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT SHOULD BE USED PER GROWING SEASON.

Weeds controlled: For specific rates of application and instructions for control of various annual and perennial weeds, refer to "ANNUAL WEEDS RATE TABLE" section of this booklet. Glypho 648 Herbicide applied at 1 ½ pints per acre will burndown or suppress the growth of the following perennial weeds and reduce crop competition: yellow and purple nutsedge, rhizome johnsongrass, common bermudagrass, silverleaf nightshade, trumpet creeper and redvine. Fall preharvest applications may be required for control of these perennial weeds.

Tank mixtures with other herbicides may result in reduced weed control or crop injury and are not recommended for over-the-top applications of this product.

Some weeds with multiple germination times or suppressed (stunted) weeds may require sequential applications of this product for control.

Preharvest applications: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20% boll crack. Allow a minimum of 7 days between application and harvest. NOTE: Glypho 648 Herbicide will not enhance performance of harvest aids when applied to Roundup Ready cotton. DO NOT APPLY GLYPHO 648 HERBICIDE PREHARVEST TO CROPS GROWN FOR SEED.

Read the "Warranty disclaimer and Notice" in this label booklet for Glypho 648 before using. For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted by Loveland Products, Inc. when this product is used in conjunction with "brown bag" or "bin-run" seed saved from previous year's production and replanted. If these terms are not acceptable, return the product unopened at once.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATIONS EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES

This product may be tank-mixed with the products listed provided the product tank-mixed is registered for use on this (these) sites.

Glypho 648 plus Banvel or dicamba plus nonionic surfactant
Glypho 648 plus 2,4-D plus nonionic surfactant
Glypho 648 plus Goal™ plus nonionic surfactant

DO NOT APPLY BANVEL, dicamba OR 2,4-D TANK MIXTURES BY AIR IN CALIFORNIA.

Applications of 2,4-D, Banvel or dicamba must be made at least 7 days prior to planting corn.

The addition of Banvel or dicamba in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel or dicamba is applied within 45 days of planting. Refer to the Banvel, dicamba and 2,4-D labels for cropping restrictions and other use instructions.

Glypho 648 plus Goal Tank Mixture
This product alone or in tank mixtures with Goal plus 0.375 percent nonionic surfactant by total spray volume will provide control of those weeds listed below.
Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.
Glypho 648 9 fluid oz/acre
Wheat 18"*
Barley 12"
Bluegrass, annual 6"
Barnyardgrass 6"
Rye 6"

Glypho 648 12 fluid oz/acre – Annual grasses listed above plus:
Ryegrass, annual 6"
Chickweed 6"
Groundsel 6"
Marestail 6"
Rocket, London 6"
Shepherdspurse 6"
Crabgrass 12"
Johnsongrass, seedling 12"
Lambsquarters 12"
Oats, wild 12"
Pigweed, redroot 12"
Mustards 12"
NOTE: Use 1 ½ pints of this product per acre where heavy weed densities exist.

Glypho 648 9 fluid oz/acre + GOAL** 2 to 4 fluid oz/acre
Annual grasses above plus:
Cheeseweed, common 3"
Chickweed 3"
Groundsel 3"
Rocket, London 6"
Shepherdspurse 6"

Glypho 648 12 fluid oz/acre + GOAL** 2 to 4 fluid oz/acre
Annual weeds above plus:
Cheeseweed, common 6"
Groundsel 6"
Chickweed 12"
Rocket, London 12"
Shepherdspurse 12"
NOTE: Use 1 ½ pints of this product per acre in mixture with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.
* Maximum height or length in inches.
** Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.
The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.
Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.
Glypho 648 at 12 to 15 fluid ounces per acre plus 2,4-D at 0.375 to 0.5 pound a.i. per acre Plus Atrazine at 0.75 to 1 pound a.i. per acre Plus Lasso® at 2.5 to 3 quarts per acre
The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED – The following weeds up to a maximum height of 4 inches will be controlled:

Brome, downy *Bromus tectorum*
Cheat *Bromus secalinus*
Foxtail, green *Setaria viridis*
Foxtail, yellow *Setaria lutescens*
Kochia* *Kochia scoparia*
Lettuce, prickly *Lactuca serriola*
Pigweed, redroot *Amaranthus retroflexus*
Thistle, Russian *Salsola kali*
Wheat, volunteer *Triticum aestivum*

*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel or dicamba to the above tank mixture.

Risk of crop injury from 2,4-D, Banvel or dicamba can be reduced by applying this treatment 7 to 14 days before planting. Refer to the label booklet for Lasso herbicide for preemergence weed control achieved by this tank mixture.
Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 6 fluid ounces of this product plus 0.375 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they 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. Tank mixtures with residual herbicides may result in reduced performance.

POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 24 fluid ounces of this product per acre for control, or 18 fluid ounces of this product per acre for suppression. Use 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.
Pasture or Hay Crop Renovation – When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment – When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.
Wiper Application – When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.
For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

SUGARCANE
When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those annual and perennial weeds listed on this label growing in or around sugarcane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.
NOTE: Where repeat treatments are necessary, do not exceed a total of 6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.
Broadcast Treatment – Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.
For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.
For removal of last stubble or ratoon cane, apply 3 to 3 ¾ quarts of this product plus nonionic surfactant at 0.5 to 1 percent by total spray volume in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.
Spot Treatment in or Around Sugarcane Fields – For dilution and rates of application using hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.
For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.
NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.
Avoid spray contact with healthy cane plants since severe damage or destruction may result.
Do not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS, Tank Mixtures
When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residues.
Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.375 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 3 quarts of this product per acre.

SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

CANOPY®	LOROX® PLUS
COMMAND®	PREVIEW®
DUAL	PROWL or pendimethalin
GERMINI®	TURBO®
LASSO/ALACHLOR	SCEPTER®
LEXONE®	SENCOR®
LINURON	SQUADRON®
PURSUIT®	PURSUIT PLUS®
PARTNER	MICRO-TECH®

For improved burndown, this product may be tank-mixed with the following herbicides:

2,4-DB

2,4-D* (WEEDONE® 638, WEEDAR®64 and others)

*See the label for 2,4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds – For difficult-to-control 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 24 fluid ounces per acre, in these tank mixtures. For other labeled annual weeds, apply 12 to 18 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 fluid ounces when weeds are over 6 inches tall. Add nonionic surfactant at 0.5 to 1 percent by total spray volume. For a complete list of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds – At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds. Use of 1 ½ to 3 quarts of this product, plus nonionic surfactant at 0.375 percent by total spray volume, per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed-control program at planting.

CORN

For improved burndown, this product may be tank-mixed with 2,4-D or dicamba. Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

*Partner herbicide is not registered in California.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEDS" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE ROUNDUP READY® GENE

General Information

LOVELAND PRODUCTS, INC. RECOMMENDS USE OF THIS PRODUCT FOR POSTEMERGENCE APPLICATION ONLY ON SOYBEAN VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY GENE.

Applying this product to soybean varieties which are not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready gene, since severe injury or destruction will result.

The Roundup Ready designation indicates that the soybean contains a patented gene which provides tolerance to glyphosate herbicides.

Information on Roundup Ready soybeans may be obtained from your seed supplier.

Application Instructions

This product may be applied postemergence to Roundup Ready soybeans from the cracking stage throughout flowering. Allow a minimum of 14 days between application and harvest of soybeans.

Maximum Allowable Application Rates:

Combined total per year for all applications:	6 quarts per acre
Preplant, Preemergence applications:	3 ¾ quarts per acre
Total in-crop applications from cracking throughout flowering:	2 ¼ quarts per acre
Maximum preharvest application rates:	¾ quart per acre

When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product.

PRECAUTIONS/RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 2 ¼ quarts per acre. The maximum rate for any single in crop application is 1 ½ quarts per acre. The maximum combined total of this product which can be applied during flowering is 1 ½ quarts per acre. Allow a minimum of 14 days between final application and harvest of soybeans.

There are no rotational crop restrictions following applications of this product.

For ground applications: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre plus nonionic surfactant at 0.5 to 1 percent by total spray volume as a broadcast spray. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use nozzles which provide a flat fan pattern. Check for even distribution of spray droplets.

For aerial applications: Use the recommended rates of this product, plus nonionic surfactant at 0.5 to 1 percent by total spray volume, in 3 to 15 gallons of spray solution

per acre. Do not exceed 24 fluid ounces of this product per acre. DO NOT APPLY DURING LOW LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. MAINTAIN APPROPRIATE BUFFER ZONES TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION.
AERIAL APPLICATIONS ON ROUNDUP READY SOYBEANS, MAY BE MADE ONLY IN THE FOLLOWING STATES: ALABAMA, ARKANSAS, COLORADO, FLORIDA, GEORGIA, KANSAS, LOUISIANA, MISSISSIPPI, MISSOURI (BOOT HEEL ONLY), NEBRASKA, NORTH CAROLINA, NORTH DAKOTA, OKLAHOMA, SOUTH CAROLINA, SOUTH DAKOTA, TENNESSEE, TEXAS, VIRGINIA AND WYOMING.

ANNUAL WEED RATE TABLES

The following rate recommendations will provide control of labeled grasses and broadleaf weeds in conventional and no-till soybean production systems. Refer to the rate recommendations for specific annual weeds.
LOVELAND PRODUCTS, INC. WILL NOT WARRANT CROP SAFETY OR WEED CONTROL WHEN ROUNDUP READY SOYBEANS ARE TREATED WITH HERBICIDES NOT SPECIFIED ON THIS LABEL. Because of potential for: 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions; herbicides not specified on this label (or current supplemental label) ARE APPLIED AT THE SOLE RISK OF THE BUYER AND USER, whether applied preemergence or applied postemergence as a tank mixture with this product.
This product may be used up to 1 ½ quarts per acre plus nonionic surfactant in any single application for control of annual weeds, where heavy weed densities exist.
NOTE: The following recommendations are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of 12 to 48 fluid ounces plus nonionic surfactant per acre of this product can be used to control existing weeds prior to crop emergence.

MIDWEST/MID-ATLANTIC RECOMMENDATIONS

Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. For best results, an initial application of ¾ quart per acre, plus nonionic surfactant of 0.5 to 1 percent by total spray volume, on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8-18" tall, use 36 ounces per acre plus nonionic surfactant for best results.
Under adverse growing conditions such as drought, hail, wind damage or poor soybean stand that slows or delays canopy closure, a sequential application of this product at 24 to 32 fluid ounces per acre may be necessary to control late flushes of weeds.
Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 1 quart per acre on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If new flushes of weeds occur, they can be controlled by sequential applications of this product.

Initial and Sequential (if needed) Applications

Weed height (inches)	Rate (fluid ounces per acre)
1-3	18
4-8	24
8-18	36

Giant ragweed: Apply ¾ quart per acre, plus nonionic surfactant at 0.5 to 1 percent by total spray volume, when the weed is 8-12" tall to avoid the need for sequential application.
Black nightshade, Pennsylvania smartweed, velvetleaf, and waterhemp: Apply ¾ quart per acre, plus nonionic surfactant to weeds 3-6" tall, and 48 oz. per acre when weeds are up to 12" tall.
Morningglory species: Apply ¾ quart per acre, plus nonionic surfactant, when weeds are up to 4" tall and 1 quart per acre, plus nonionic surfactant, when weeds are up to 6" tall.

Some weeds, such as black nightshade, wooly cupgrass, shattercane, wild proso millet, burcumber and giant ragweed, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 18 fluid ounces per acre, plus nonionic surfactant, for sequential applications.

SOUTHEAST RECOMMENDATIONS

Narrow row, drilled or wide-row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of ¾ quart per acre, plus nonionic surfactant, on 3-6" weeds is recommended. Weeds will generally be 3-6" tall 2 to 3 weeks after planting.

Weed Height (inches)	Rate (fluid ounces per acre)
3-6	24
6-12	36

Under adverse growing conditions such as drought, hail, wind damage or poor soybean stand that slows or delays canopy closure, a sequential application of this product at 16 to 32 fluid ounces per acre, plus nonionic surfactant may be necessary to control late flushes of weeds.

Sequential Application (if needed)

Weed Height (inches)	Rate (fluid ounces per acre)
2-3	12
3-6	18
6-12	24

Florida pusley, hemp sesbania and spurred anoda: Apply ¾ quart per acre, plus nonionic surfactant, to weeds 2-4" for the initial application.
Apply ¾ quart per acre, plus nonionic surfactant when these weeds are 3-6" tall if a sequential application is necessary.

Morningglory, black nightshade, groundcherry and Pennsylvania smartweed: Apply 18 fluid ounces per acre, plus nonionic surfactant, on 1-3" weeds, 24 ounces on 3-6" weeds, or 32 fl oz/A on 6-12" weeds for the initial application.
Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications.
Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces per acre, plus nonionic surfactant, for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 72 fluid ounces per acre.

DELTA/MID-SOUTH RECOMMENDATIONS

Narrow row, drilled, or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. For best results, an initial application of 24 fluid ounces per acre, plus nonionic surfactant, on 2-4" weeds is recommended. Weeds will generally be 2-4" tall 2 to 3 weeks after planting.

Initial Treatment	
Weed height (inches)	Rate (fluid ounces per acre)
2-4	24
5-12	32
Sequential Application	
Weed Height (inches)	Rate (fluid ounces per acre)
2-3	12
3-6	18
6-12	24

Hemp sesbania and spurred anoda: Apply a sequential treatment of 24 fluid ounces per acre, plus nonionic surfactant on 3-6" weeds if necessary.
Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications.

PERENNIAL WEEDS RATE RECOMMENDATIONS

A 24 to 48 ounces per acre, plus nonionic surfactant, 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" of growth before spraying with this product. For additional information on perennial weeds, see the "PERENNIAL WEED RATE TABLE" of this label. For some perennial species, repeat application may be required to eliminate crop competition throughout the growing season.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton, soybeans and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.
This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 24 FLUID OUNCES PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions for ground and aerial applications.
NOTE: Do not apply to crops grown for seed unless the likelihood of a reduction in germination and/or vigor is acceptable. Reduction in germination or vigor may occur.
The use of this product for preharvest grain sorghum (Milo) is not registered in California.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.
Do not graze or harvest treated crop for livestock feed within 25 days of last preharvest application.
DO NOT APPLY MORE THAN 4 ½ QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

ALFALFA

This product may be used in declining alfalfa stands or any stand of alfalfa where crop reduction is acceptable. This application will severely injure or destroy the stand of alfalfa. The application rate of 24 fluid ounces per acre will control most annual and perennial weeds, including quackgrass, when applied prior to the harvest of alfalfa.
The treated crop can be harvested and fed to livestock after 36 hours. Allow a minimum of 36 hours between application and harvest. For best results, harvest within 7 days after spraying.
Applications may be made at any time of year. Make only one preharvest application to an existing stand of alfalfa per year. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing and at the proper growth stage (6 to 8 inches or more in height). Treatments for quackgrass must be followed by deep tillage for complete control.
DO NOT APPLY MORE THAN 24 FLUID OUNCES OF THIS PRODUCT PER ACRE AS A PREHARVEST TREATMENT TO ALFALFA.

COTTON

Broadcast Applications –This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, 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.
This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply ¾ to 1 ½ quarts of this product, plus nonionic surfactant, in 3 to 10 gallons of water per acre for cotton regrowth inhibition.
Do not apply more than 1 ½ quarts of this product, plus nonionic surfactant, per acre for preharvest applications.
THE USE OF ADDITIVES FOR PERHARVEST APPLICATION TO COTTON IS PROHIBITED.
This product may be tank mixed with DEF®6, Folex®, or Prep® to provide additional enhancement of cotton leaf drop.
Allow a minimum of 7 days between application and harvest of cotton.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.
Do not feed or graze treated cotton forage or hay following preharvest applications.

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or less and at least 7 days prior to harvest. Apply up to 1 ½ quarts of this product per acre. Add nonionic surfactant at 0.5 to 1 percent by total spray volume.

WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.
DO NOT APPLY MORE THAN ¾ QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT. Add nonionic surfactant at 0.5 to 1 percent by total spray volume.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.
When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 8 quarts of this product per acre per year.
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 OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.
AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.
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.
For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow.

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

Glypho 648

Glypho 648 plus GOAL

This product alone or in mixture with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixture with Goal plus 0.375 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

WEED SPECIES	MAXIMUM HEIGHT/DIAMETER (INCHES)	RATE PER ACRE *Glypho 648* (FLUID OUNCES)	GOAL or Oxyfluorfen (FLUID OUNCES)
Barley *Hordeum vulgare* Bluegrass, annual *Poa annua* Barnyardgrass *Echinochloa crus-galli* Chickweed, common *Stallaria media* Red Maids *Calandrinia ciliata*	6 6	6 9	 --
Crabgrass *Digitaria* spp. Fleabane, hairy *Conyza bonariensis* Groundsel, common *Senecio vulgaris* Junglerice *Echinochloa colonum* Lambsquarters, common *Chenopodium album* Pigweed, redroot *Amaranthus retroflexus* Rocket, London *Sisymbrium irio* Ryegrass, common *Lolium multiflorum* Shepherdspurse *Capsella bursa-pastoris* Sowthistle, annual *Sonchus oleraceus*	6	12 Or 12 to 24	-- + 4 to 16**
Cheeseweed, common *Malva* spp.	3	9 to 24	+ 4 to 16
Cheeseweed, common *Malva* spp. Filaree* *Erodium* spp. Horseweed/Marestail *Conyza canadensis* Nettle, stinging *Urtica dioica* Purselane, common* *Portulaca oleracea*	6	12 to 24	+ 4 to 16

*Suppression only.

**The mixture of this product plus Goals recommended when weeds are stressed or growing in dense populations.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

TANK MIXTURES WITH RESIDUAL HERBICIDES

This product may be tank-mixed with the products listed provided the product tank-mixed is registered for use on this (these) sites.

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

Glypho 648 plus Goal 2XL
Glypho 648 plus Karmex™ DF
Glypho 648 plus Krovar I
Glypho 648 plus Krovar II

Glypho 648 plus Princep Caliber 90, Simazine 4L, 80W or 90DF
Glypho 648 plus Solicam™ 80DF
Glypho 648 plus Surflan AS or 75W
Glypho 648 plus Princep Caliber 90, Simazine 4L, 80W or 90DF plus Surflan AS or 75W
Glypho 648 plus Goal 2XL plus Surflan AS or 75W
Glypho 648 plus Goal 2XL plus Princep Caliber 90, Simazine 4L, 80W or 90DF
Glypho 648 plus Goal 2XL plus Surflan AS or 75W plus Princep Caliber 90, Simazine 4L, 80W or 90DF.

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds – Apply ¾ to 3 ¾ quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds – Apply ¾ pint to 3 ¾ quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and application rates for specific perennial weeds.

Glypho 648 plus GOAL plus SIMAZINE/SURFLAN plus SIMAZINE/SURFLAN

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.375 percent nonionic surfactant by total spray volume to the spray solution.

Apply ¾ to 3 ¾ quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild *Hordeum leporinum*
Bluegrass, annual *Poa annua*
Cheeseweed, common *Malva* spp.
Chickweed, common *Stellaria media*
Filaree* *Erodium* spp.
Fleabane, hairy *Conyza bonariensis*
Groundsel, common *Senecio vulgaris*
Horseweed/Marestail - *Conyza canadensis*
Nettle, stinging *Urtica dioica*
Pineappleweed *Matricaria matricarioides*
Rocket, London *Sisymbrium irio*
Shepherdspurse *Capsella bursa-pastoris*
Sowthistle, annual *Sonchus oleraceus*

*Use a minimum of 2 ¼ pints of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION*
ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

Bahiagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 4 ½ fluid ounces of this product plus 0.375 percent nonionic surfactant by total volume spray in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 3 fluid ounces of this product plus nonionic surfactant. A second sequential application of 1 ½ to 3 fluid ounces may be made approximately 45 days after the last application.

Bermudagrass

For burndown, apply 1 ½ to 3 pints of this product plus 0.375 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 ½ pints of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 ½ to 3 pints of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains) – Apply 4 ¾ to 12 fluid ounces of this product plus 0.375 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 4 ½ to 7 ½ fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains) – Apply 12 fluid ounces of this product plus 0.375 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 6 fluid ounces of this product plus 0.375 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution. For suppression of Kentucky bluegrass covers, apply 4 ½ fluid ounces of this product plus 0.375 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

LOW VOLUME APPLICATION
(FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.375 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed – Apply 2 ½ to 4 ½ pints per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.375 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 ¼ pints per acre when plants are less than 8 inches tall and 4 ½ pints per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Use labeled rates for these residual products. Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth. Add nonionic surfactant at 0.375 percent by total spray volume.

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

WEED SPECIES	Glypho 648 RATE PER ACRE			
	1 ½ pts	2 ¼ pts	4 ½ pts	7 ½ pts
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

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapefruit, kumquat, lemon, lime, mandarin orange, orange, pummelo, tangelo, tangerine, tangors.

Nuts**: almond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pistachio, walnut.

Pome Fruit*****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, nectarines, olives, peaches, plums/prunes.

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

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in states specified in the following paragraph, in all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10

days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which 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.
Tropical Fruit: acerola*, atemoya*, avocado*, banana*****, (plantains****), breadfruit*, canistel*, carambola*, cherimoya*, cocoa beans*, coffee****, dates*, figs*, genip*, guava*****, jaboticaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, pomegranate*, sapodilla*, sapote*, soursop*, sugar apple*, tamarind*, tea*, in coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

NOTE
*Allow a minimum of 14 days between last application and harvest.
** Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between last application and harvest.
*** Allow a minimum of 17 days between last application and harvest.
**** Allow a minimum of 28 days between last application and harvest.
***** Allow a minimum of 1 day between last application and harvest.

VINE CROPS
Kiwi Fruit
Grapes: Any variety of table, wine or raisin grape may be treated with any equipment listed in the section.
Applications should not be made when green shoots, canes, or foliage are in the spray zone.
Allow a minimum of 14 days between last application and harvest.
In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

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70/70