## 08/08/2005





U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (H7505C) 401 "M" St., S.W. Washington, D.C. 20460

EPA Reg. Number: 19713-

580

Date of Issuance:

AUG - 8 2005

NOTICE OF PESTICIDE:

<u>x</u> Registration \_\_\_ Reregistration

(under FIFRA, as amended)

Term of Issuance:
Conditional

Name of Pesticide Product:

Drexel Glyphosate-K

Name and Address of Registrant (include ZIP Code):

Drexel Chemical Company P.O. Box 13327 1700 Channel Avenue Memphis, TN 38113-0327

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

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

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

This product is conditionally registered in accordance with section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) provided that you:

- 1. Submit/cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
- 2. Make the labeling changes listed below before you release the product for shipment.
- a. Add the phrase "EPA Registration No. 19713-580".
- b. On page 3, delete the statement "For Aerial Application In California, specific counties therein, or in Arkansas, refer to the end of this label for aerial applications in that state or county for specific instructions, restrictions, and requirements "since discussed information does not appear on the proposed label.
- c. The "Warranty-Conditions of Sale" must be revised as per guidance provided in Chapter 12, Section VI of the Label Review Manual.

Submit two(2) copies of your final printed labeling before you release the product for shipment.

Signature of Approving Official.

Date:

8-8-05

EPA Form 8 70-6

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of labeling is enclosed for your records.

Please note that due to a recent ruling by EPA's Office of General Council (OGC), in situations with 100% repacks, the formulators exemption may be accepted for the basic formulation (CSFs). All subsequent alternate formulations (CSFs) must comply with Data Compensation.

ACCEPTED with COMMENTS
In EPA Letter Dated:
AV6 - 8 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Ass, as amended, for the pesticide registered under EPA Rog. No. [4713-580]



## Glyphosate-K Max

Herbicide

Selective broad-spectrum weed control in Roundup Ready crops. Non-selective, broad-spectrum weed control for many agricultural systems and farmsteads.

## **ACTIVE INGREDIENT:**

This product contains 660 grams per liter or 5.5 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its potassium salt. Equivalent to 540 grams per liter or 4.5 pounds per U.S. gallon of the acid, glyphosate.

# CAUTION

See FIRST AID Below

EPA Reg. No. 19713-EPA Est. No.

**Net Contents:** 

## **FIRST AID**

#### IF IN EYES:

Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

## IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of soap and water for 15 to 20 minutes.

#### E INHALED

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

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 information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

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



## GROUP 9 HERBICIDE

Avoid contact of herbicide with foliage, green stems, exposed non-woody roots or fruit of crops (except as specified for individual Roundup Ready® crops), desirable plants and trees, because severe injury or destruction may result.

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

Read the entire label before using this product.

Use only according to label instructions.

Read the "WARRANTY - CONDITIONS OF SALE" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

This is an end-use product. Drexel Chemical Company does not intend and has not registered it for reformulation. See individual container label for repackaging limitations.

#### PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Causes moderate eye irritation. Harmful if inhaled. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Mixers, loaders, other handlers and applicators, when handling this concentrated product or its application solutions of 30 percent concentration or greater, must wear: Long-sleeved shirt and long pants, shoes, socks, chemical-resistant gloves made of any watering material such as polyethylene or polyginal chloride.

terproof material such as polyethylene or polyvinyl chloride.

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

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

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

#### **USER SAFETY RECOMMENDATIONS**

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 2) Remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## **ENVIRONMENTAL HAZARDS**

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

## PHYSICAL AND CHEMICAL HAZARDS

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



DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLU-TIONS 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.

#### GENERAL INFORMATION (How this product works)

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

Do not add surfactants, additives containing surfactants, buffering agents or pH adjusting agents to the spray solution when this product is the only pesticide used unless otherwise directed. See the "MIXING" section of this label for instructions regarding other additives.

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

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

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

Do not treat weeds with disease or insect damage, as reduced weed control may result.

Reduced results may also occur when treating weeds under poor growing conditions or that are heavily covered with dust.

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

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

Spray Coverage: For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of run-off.

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

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

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

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

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

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

Annual Maximum Use Rate: Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 5.3 quarts of this product per acre per year. For applications in non-crop sites or in tree, vine or shrub crops, the combined total of all treatments must not exceed 7 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

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

Information on Weed Resistance:

## GROUP 9 HERBICIDE

Glyphosate, the active ingredient in this product, is a Group 9 herbicide. Target site resistance to Group 9 herbicides is rare. Although rare in occurrence, any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural practices.

Weed resistance management recommendations for Group 9 herbicides are:

- Ensure optimum weed control by making applications at the right time (correct weed size) and utilizing the recommended label rate for the most difficult to control weed in your field.
- Base decisions on local needs and use the tool(s) necessary to obtain optimum weed control and minimize weed escapes.
- Avoid tank mixtures that reduce this product's efficacy (through antagonism) or which encourage rates of this product below the label recommendations.
- Scout treated weed populations for escapes 2 to 4 weeks after application.
- Report any incidence of repeated non-performance of this product on a particular weed to the local retailer, county extension agent, or Drexel Chemical Company representative.

## MIXING

Use the following conversion table to help determine application rates of this product based on commonly used rates of Roundup Original® and Roundup UltraMAX® herbicides.

APPLICATION RATES		
This Product (Ounces)	Roundup UltraMAX (Ounces)	Roundup Original (Ounces)
16	20	24
22	26	32
27	32	40
32	40	48

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

NOTE: Reduced results may occur if water containing soil is used, such as visibly muddy water or water from ponds and ditches that is not clear.

#### Mixing with Water

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. Add the recommended amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by State or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

#### Tank Mixing Procedure

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

- 1. Place a 20- to 35-mesh screen or wetting basket over filling port.
- Through the screen, fill the spray tank one-half full with water and start agitation.
- If ammonium sulfate is used add it slowly through the screen into the tank. Continue agitation. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding other products.
- 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.
- 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.
- 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.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift reduction additive and water soluble figuid.

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

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

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

Refer to the "Tank Mixing" section of "GENERAL INFORMATION" for additional precautions.

#### Mixing for Hand-Held Sprayers

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

SPRAY SOLUTION						
Desired	Amount of This Product					
Volume	0.4%	0.7%	1%	1.5%	4%	7%
1 gal.	0.5 oz.	1 oz	1.3 ozs.	2 ozs.	5 ozs.	9 ozs
25 gals.	0.8 pt.	0.7 qt.	1 qt.	1.5 qts.	4 qts.	7 qts.
100 gals.	1.6 qts.	2.8 qts.	1 gal.	1.5 gals.	4 gals.	7 gais

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.

#### Ammonium Sulfate

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

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

#### Colorants or Dyes

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

#### **Drift Reduction Additives**

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

## **DIRECTIONS FOR USE**

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

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forest, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS

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

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, shoes plus socks and chemicalresistant gloves made of any waterproof material.

#### NON-AGRICULTURAL USE REQUIREMENTS

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

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

## **APPLICATION EQUIPMENT AND TECHNIQUES**

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

This product may be applied with the following application equipment.

Aerial-Fixed Wing and Helicopter

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

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

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

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

Injection Systems-Aerial or ground injection sprayers.

Controlled Droplet Applicator (CDA)—Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

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

#### **AERIAL EQUIPMENT**

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this labet. Unless otherwise specified, do not exceed 22 fluid ounces per acre. Refer to the individual use area sections of this label for recommended volumes, application rates, and further instructions.

FOR AERIAL APPLICATION IN CALIFORNIA OR SPECIFIC COUNTIES THEREIN, OR IN ARKANSAS, REFER TO THE END OF THIS LABEL FOR AERIAL APPLICATION IN THAT STATE OR COUNTY FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product plus dicamba tank mixtures may not be applied by air in California. Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

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

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

- The distance of the outermost nozzles on the boom must not exceed three-fourth the length of the wingspan or rotor.
- 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.

### importance of Droplet Size

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

#### Controlling Droplet Size

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



#### Swath Adjustment

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

#### Wind

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

## Temperature and Humidity

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

#### Temperature Inversions

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

#### Sensitive Areas

This product 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).

Avoid direct application to any body of water.

#### Aircraft Maintenance

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

## **GROUND BROADCAST EQUIPMENT**

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

### HAND-HELD OR HIGH VOLUME EQUIPMENT

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only. For recommended rates and timing, refer to the "Annual Weeds—Hand-Held or High-Volume Equipment" section of this product label.

#### **SELECTIVE EQUIPMENT**

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

In cropping systems, hooded sprayers, shielded sprayers, and wipers may be used in row-middles (in between rows of crop plants) where any dripping or leaking will not contact crop foliage. Such equipment must be capable of preventing all crop contact with herbicide solutions and operated without leakage of spray mists or dripping onto crop. Wipers over-the-top of crops may be used only when specifically recommended in this product labeling.

## AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Application equipment used above desirable 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 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.

#### Recirculating Spray System

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.

## Shielded and Hooded Applicators

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

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

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

These procedures will reduce the potential for crop injury:

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

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

## Wiper Applicators

When applied under the conditions described in the following paragraphs, this product CONTROLS many weeds, including Volunteer com, Texas panicum, Common rye, Shattercane, Sicklepod, Spanishneedles and Bristly starbur; and SUPPRESSES many weeds including Florida beggarweed, Bermudagrass, Hemp dogbane, Dogfennel, Guineagrass, Johnsongrass, Milkweed, Silverleaf nightshade, Redroot pigweed, Giant ragweed, Smutgrass, Sunflower, Canada thistle, Musk thistle, Vaseygrass and Velvetleaf.

Wiper applicators 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 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if two applications are made in opposite directions.

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

Do no use wiper equipment when weeds are wet.

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

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators—Solutions ranging from 33 to 75 percent of this product in water may be used. Apply this solution to weeds listed above in this section.

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

### INJECTION SYSTEM

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



#### **CDA EQUIPMENT**

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

For the control of annual weeds with hand-held CDA units, apply a 20-percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1 quart per acre). For the control of perennial weeds, apply a 20- to 30-percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 miles per hour (2 to 3 quarts per acre).

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

## ANNUAL AND PERENNIAL CROPS (Alphabetical)

NOTE: THIS SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED CROPS WITHIN SECTION 8 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.

See the "ROUNDUP READY CROPS" section of this label for instructions for treating Roundup Ready crops.

TYPES OF APPLICATIONS: Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row Middles, Wiper Applications in Row-Middles, and Post-Harvest treatments.

GENERAL USE INSTRUCTIONS: Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergent to annual and perennial crops listed in this label, except where specifically limited. For any crop not listed in this label, applications must be made at least 30 days prior to planting. Unless otherwise specified, weed control applications may be made according to the rates listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH AND TREES RATE TABLES" in this label. Repeat applications may be made up to a maximum of 5.3 quarts per acre per year.

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

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

GENERAL PRECAUTIONS, RESTRICTIONS: Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting and non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

In crops where spot treatments are allowed, do not treat more than 10 percent of the total field to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.

For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

## Cereal and Grain Crops

LABELED CROPS: Barley, Buckweat, Millet (Pearl, Proso) Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types), Wild rice.

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

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus the following: Red Rice Control Prior to Planting Rice, Spot Treatment (except Rice), Over-the-Top Wiper Applications (Feed Barley and Wheat Only), Preharvest (Feed Barley and Wheat Only).

## Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied before, during or after planting of cereal crops. Applications must be made prior to emergence of the crop.

#### Red Rice Control Prior to Planting Rice

USE INSTRUCTIONS: Apply 32 fluid ounces of this product in 5 to 10 gallons of water per acre. Flush fields prior to application to obtain uniform germination and stand of Red rice. Make application when the majority of the Red rice plants are in the 2-leaf stage no more than 4 inches tail. Red rice plants with less than 2 true leaves may be only partially controlled. PRECAUTIONS, RESTRICTIONS: Avoid spraying during low humidity conditions, as reduced control may result. Do not treat Rice fields or levees when the fields contain floodwater. Do not re-flood treated fields for 8

#### Spot Treatment (Except Rice)

days following application.

USE INSTRUCTIONS: This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 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.

#### Over-the-Top Wiper Applications (Feed Barley and Wheat Only)

USE INSTRUCTIONS: Wiper applications may be used in Wheat and Feed barley. To control Common rye or Cereal rye, apply after the weeds have headed and achieved maximum growth, and when the Rye is at least 6 inches above the Wheat crop.

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

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

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

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

PRECAUTIONS, RESTRICTIONS: Do not apply more than 22 fluid ounces of this product per acre. Allow 7 days between application and harvest or grazing. Preharvest application is not recommended for Wheat or Barley grown for seed, as a reduction in germination or vigor may occur.

#### Post-Harvest

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

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

#### Com

TYPES OF CORN: Field corn, Seed corn, Silage corn, Sweet corn, Popcorn.

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus the following: Spot Treatment, Preharvest.

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

#### Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied alone or in a tank mixture before, during or after planting Corn. Applications must be made prior to emergence of the crop.

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

2,4-D
Aim®
Atrazine
Axiom®
Balance®
Banvel™/Clarity®
Bicep MAGNUM®/Trizmet™ II Herbicide
Bullet®

Bullet®
Degree®
Degree Xtra®
Distinct®
Dual MAGNUM®

DualIIMAGNUM<sup>®</sup>/ Me-Too-Lachlor™Herbicide Me-Too-Lachlor™II Herbicide

Ebic.

Frontier\*/Outlook\*
Fultime\*/Power Play Herbicide
Guardsman\*/Leadoff\*

Guardsman®/Leadoff Hamess® Hamess Xtra

Harness Xtra 5.6L
Lariate
Lasso®/Alachlor
Linex®/Lorox™
Marksman®
Micro-Tech®

Prowf®
Python®
Simazine
TopNotch®



For difficult-to-control annual weeds such as Fall panicum, Barnyardgrass, Crabgrass, Shattercane and Broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 22 fluid ounces per acre in these tank mixtures. For other labeled annual weeds, apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 22 to 32 fluid ounces when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.

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

For Southern states, do not apply in nitrogen solutions to tough-to-control grasses such as Barnyardgrass, Fall panicum, Broadleaf Signalgrass, Annual ryegrass and any Perennial weeds. The area covered by this recommendation includes from Route 50 South in Illinois and Indiana and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

#### **Hooded Sprayers**

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

PRECAUTIONS, RESTRICTIONS: Corn must be at least 12 inches tall, measured without extending leaves. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not apply more than 22 fluid ounces of this product per acre for each application and no more than 64 fluid ounces per acre per year for hooded sprayer applications.

#### **Spot Treatment**

USE INSTRUCTIONS: For spot treatments, apply this product prior to silking of Corn.

PRECAUTIONS, RESTRICTIONS: 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

USE INSTRUCTIONS: Make application at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the Corn is physiologically mature (black layer formed). For ground applications, apply up to 64 fluid ounces of this product per acre. For aerial applications, apply up to 44 fluid ounces of this product per acre.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest. Preharvest application is not recommended for Com grown for seed, as a reduction in germination or vigor may occur.

#### Post-Harvest

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

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

## For Control and Management of Glyphosate Resistant Horseweed (Marestail, Conyza canadensis) in Corn

USE INSTRUCTIONS: For ground application, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.

#### Preplant, At-Planting, Preemergence

Apply a tank mixture of this product (22 fluid ounces per acre) plus 2.4-D (0.5 pounds a.i. per acre) before Horseweed exceeds 6 inches in height. See the 2.4-D product label for time intervals that are required between application and planting.

Atrazine (1 to 2 pounds active ingredient per acre) may be included in the tank-mixture to provide residual control. Refer to the atrazine product label for specific use instructions.

#### Cottor

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus the following: Selective Equipment, Spot Treatment. Preharvest.

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

### Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied before, during or after planting Cotton. Applications must be made prior to emergence of the crop.

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



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

## Hooded Sprayers, Selective Equipment

USE INSTRUCTIONS: This product may be applied through hooded sprayers, recirculating sprayers, shielded applicators or wiper applicators in Cotton. Allow at least 7 days between application and harvest.

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

#### Spot Treatment

USE INSTRUCTIONS: For spot treatments, apply this product prior to boli opening of Cotton.

PRECAUTIONS, RESTRICTIONS: 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.

#### **Preharvest**

USE INSTRUCTIONS: This product provides weed control and Cotton regrowth inhibition when applied prior to harvest of Cotton. For weed control, apply at rates given in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES" sections of this label. For Cotton regrowth inhibition, apply 11 to 44 fluid ounces of this product per acre.

Up to 44 fluid ounces of this product may be applied using either aerial or ground spray equipment. Apply after sufficient bolls have developed to produce the desired yield of Cotton. Applications made prior to this time could affect maximum yield potential.

TANK MIXTURES: This product may be tank mixed with DEF® 6, Dropp®, Folex®, Ginstar®, or Prep™ to provide additional enhancement of Cotton leaf drop.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest of Cotton. Preharvest application is not recommended for Cotton grown for seed, as a reduction in germination or vigor may occur.

## For Control and Management of Glyphosate Resistant Horseweed (Marestail, Conyza canadensis) in Cotton

USE INSTRUCTIONS: For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.

#### Preplant

Fur control of Horseweed, apply this product at 22 fluid cunces per acre in tank mix with Clarity at 8 fluid ounces per acre. This application must be made 21 to 35 days before planting and before Horseweed reaches 6 inches in height. In order to avoid crop injury, a minimum interval of 21 days during which there is at least 1 inch of cumulative rainfall must be observed between Clarity application and planting of Cotton.

## **Fallow Systems**

LABELED CROPS: This product may be applied during the fallow period prior to planting or emergence of any crop on this label.

TYPES OF APPLICATIONS: Chemical Fallow, Preplant Fallow Beds, Aid-to-Tillage.

## Chemical Fallow

USE INSTRUCTIONS: This product may be applied during the fallow period prior to planting or emergence of any crop listed on this tabel. This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used. Applications up to 44 fluid ounces per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

PRECAUTIONS, RESTRICTIONS: For any crop not listed on this label applications must be made at least 30 days prior to planting. Do not apply dicamba tank mixtures by air in California.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba is applied within 45 days of planting.

#### Preplant Fallow Beds

USE INSTRUCTIONS: This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made at least 30 days prior to planting. This product will control weeds listed in the "ANNUAL WEEDS RATE TABLE", "PERENNIAL WEEDS RATE TABLE", and "WOODY BRUSH AND TREES RATE TABLE" sections of this label.



TANK MIXTURES: In addition, 8 fluid ounces of this product plus 2 to 3 fluid ounces of Goal® 2XL per acre will control the following weeds with the maximum height or length indicated: 3 inches-Common cheeseweed, Chickweed, Groundsel; 6 inches-London rocket, Shepherdspurse.

11 fluid ounces of this product plus 2 to 3 fluid ounces of Goal 2XL per acre will control the following weeds with the maximum height or length indicated: 6 inches-Common cheeseweed, Groundsel, Marestail (*Conyza canadensis*), 12 inches-Chickweed, London rocket, Shepherdspurse.

#### Aid-to-Tilage

USE INSTRUCTIONS: This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control Downy brome, Cheat, Volunteer wheat, Tansy mustard and Foxtail. Apply 8 fluid ounces of this product in 3 to 10 gallons of water per acre. Make applications before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage.

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

#### Grain Sorghum (Milo)

TYPE OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus the following: Spot Treatment, Over-the-Top Wiper Applications, Preharvest.

#### Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied alone or in tank mixture before, during or after planting Grain sorghum. Applications must be made prior to emergence of the crop.

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

Atrazine Lariat
Bicep II MAGNUM Lasso
Bullet Micro-Tech

Dual II MAGNUM

For difficult-to-control annual weeds such as Fall panicum, Barnyardgrass, Crabgrass, Shattercane and Broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 22 fluid ounces per acre in these tank mixtures. For other labeled annual weeds, apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 22 to 32 fluid ounces when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased for acceptable weed control.

#### Spot Treatment, Over-the-Top Wiper Applications

USE INSTRUCTIONS: This product may be applied as a spot treatment in Grain sorghum. Make spot treatments before heading of Milo. This product may be applied with wiper applicators to control or suppress the weeds listed under "Wiper Applicators" in the "Selective Equipment" section of this label.

PRECAUTIONS, RESTRICTIONS: For spot treatment, do not treat more than 10 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.

For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated Milo fodder. Do not ensile treated vegetation.

#### Hooded Sprayers

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

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

PRECAUTIONS, RESTRICTIONS: Milo must be at least 12 inches tall, measured without extending leaves. Treat before Milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not graze or feed Milo forage or fodder following applications of this product through hooded sprayers. Do not apply more than 22 fluid ounces of this product per acre per application and no more than 64 fluid ounces per acre per year for hooded sprayer applications.

### Preharvest

USE INSTRUCTIONS: Make applications at 30 percent grain moisture or less.

PRECAUTIONS, RESTRICTION: Do not apply more than 44 fluid ounces of this product per acre. As with other herbicides that cause sudden plant death, avoid preharvest applications of this product to Milo infected with Charcoal rot as lodging can occur. Allow a minimum of 7 days between application and harvest of Sorghum. Preharvest application is not recommended for Sorghum grown for seed, as a reduction in germination or vigor may occur. The use of this product for preharvest Grain sorghum (Milo) is not registered in California.

#### Post-Harvest

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

This product may be applied to Grain sorghum (Milo) stubble following harvest to suppress or control regrowth. Apply 22 fluid ounces of this product per acre for control or 16 fluid ounces of this product per acre for suppression.

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

#### Herbs and Spices

LABELED CROPS: Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive. Cinnamon, Clary, Clove buds, Coriander leaf (Cilantro or Chinese parsley), Coriander seed (Cilantro), Costmary, Culantro (leaf), Culantro (seed), Cumin, Curry (leaf), Dill (diliweed), Dill (seed), Epazote, Fennel seed (Common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including Oregano), Mexican oregano, Mioga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (Summer and Winter), Spearment, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus the following: Over-the-Top Wiper Applications (Peppermint and Spearmint Only), Spot Treatment (Peppermint and Spearmint Only).

PRECAUTIONS, RESTRICTIONS: When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5 inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to insure that the washwater flushes off the plastic mulch and does not enter the transplant holes.

## Over-the-Top Wiper Applications, Spot Treatment (Peppermint and Spearmint Only)

USE INSTRUCTIONS: This product may be used as a spot treatment or wiper application in Spearment and Peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack and knapsack sprayers, pump-up pressure sprayers, handguns, handwands or any other hand-held or motorized spray equipment used to direct the spray solution to a limited area. In wiper applications, the applicator should be adjusted so that the wiper contact point is at least 2 inches above the crop. Weeds should be a minimum of 6 inches taller than the crop.

PRECAUTIONS, RESTRICTIONS: Allow at least 7 days between application and harvest. Further applications may be made in the same area at 30-day intervals. In spot treatment applications, no more than 10 percent of the total field area to be harvested should be treated at one time. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for this reason. In wiper applications, contact of the herbicide solution with the crop may result in damage or destruction.

#### Oil Seed Crops

LABELED CROPS: Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower.

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

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS".

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

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

PRECAUTIONS, RESTRICTIONS: Do not apply more than 44 fluid ounces of this product per acre on Canola. Do not apply more than 22 fluid ounces of this product per acre for Sunflowers as a single preplant or preemergent application per year. Do not feed or graze Sunflower forage following application of this product.



#### Soybeans

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus the following: Spot Treatment, Preharvest, Selective Equipment.

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

#### Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied alone or in a tank mixture before, during or after planting Soybeans. Applications must be made prior to emergence of the crop

TANK MIXTURES: Apply these tank mixtures in 10 to 20 gallons of water per acre.

Gauntlet™ Aim Amplify™ Lasso Assure® II Linex Authority® Lorox/Linuron Boundary® Lorox Plus™ Canopy Micro-Tech Canopy XL® Prow Pursuit® Command Pursuit Plus Command Xtra Reflex® Domain® Dual MAGNUM Scepter<sup>®</sup> Sencor®/Lexone® Dual II MAGNUM Firstrate® Squadron® Flexstar™ Steel® Frontier/Outlook Valor® Fusion®

This product may be tank mixed with 2,4-D or 2,4-DB, provided that the specific product is registered for application prior to planting Soybeans.

For difficult-to-control annual weeds such as Fall panicum, Barnyardgrass, Crabgrass, Shattercane and Broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 22 fluid ounces per acre in these tank mixtures. For other labeled annual weeds, apply 16 to 22 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 22 to 32 fluid ounces when weeds are over 6 inches tall.

PRECAUTIONS, RESTRICTIONS: Tank mixtures with some of the above listed herbicides may result in reduced weed control due to antagonism. Read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used. Use according to the most restrictive directions for each product in the mixture.

#### Spot Treatment

USE INSTRUCTIONS: For spot treatments, apply this product prior to initial pod set in Soybeans.

PRECAUTIONS, RESTRICTIONS: 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.

#### Preharvest

USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of Soybeans.

Apply at rates given in the "ANNUAL WEEDS", PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES". This product may be applied using either aerial or ground spray equipment. Apply after pods have set and lost all green color. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

PRECAUTIONS, RESTRICTIONS: Do not apply more than 3.3 quarts per acre of this product for preharvest applications. Do not apply more than 44 fluid ounces per acre of this product by air. Allow a minimum of 7 days between application and harvest of Soybeans. Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. (If the application rate is 22 fluid ounces per acre or lower, the grazing restriction is reduced to 14 days after last preharvest application.) Preharvest application is not recommended for Soybeans grown for seed, as a reduction in germination or vigor may occur.

### Selective Equipment

USE INSTRUCTIONS: This product may be applied through recirculating sprayers, shielded applicators, hooded sprayers, wiper applicators or sponge bars in Soybeans. Allow at least 7 days between application and harvest. PRECAUTIONS, RESTRICTIONS: See the "Selective Equipment" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label

## for information on proper use and calibration of this equipment. For Control and Management of Glyphosate Resistant Horseweed (Marestall, Conyza canadensis) in Soybeans

USE INSTRUCTIONS: For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.

#### Preplant

Apply a tank mixture of this product at 22 fluid ounces per acre with 2,4-D at 0.5 pounds a.i. per acre before Horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting. For areas where 2,4-D cannot be applied due to application restrictions or proximity to a sensitive crop, contact your local retailer or Drexel Chemical Company representative.

#### Sugarcane

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus Spot Treatment.

#### Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be apptied in or around Sugarcane fields or in fields prior to the emergence of plant cane.

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

#### Spot Treatment

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

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

#### **Fallow Treatments**

USE INSTRUCTIONS: This product may be used as a replacement for tillage in fields that are lying fallow between Sugarcane crops. This product may also be used to remove the last stubble of Ratoon cane. For removal of last stubble of ratoon cane, apply 2.5 to 3.3 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage. Ground or aerial application equipment may be used. Applications up to 64 fluid ounces per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used.

#### **Hooded Sprayers**

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

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

#### For Aid in Sugarcane Ripening

This product is a foliar-applied plant growth regulator to hasten ripening and increase the level of sucrose in Sugarcane. It is effective in both tow and high-tonnage Sugarcane.

When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in Sugarcane. As a result of leaf desiccation, improved trash burn can be expected.

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

Prior to application, consult your state Sugarcane authority or local Drexel Chemical representative regarding the degree of sucrose response anticipated from the variety of Sugarcane to be treated. Do not plant subsequent crops in treated fields other than the following for 30 days after application: Alfalfa or other forage legumes, Beans (all types), Corn (all types), Cotton, Melons (all types), Pasture grasses, Peanuts, Potatoes (Irish or Sweet), Sorghum (Milo), Soybeans, Squash (all types) or Wheat.

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

Rainfall within 6 hours after application may reduce effectiveness.

Application is not recommended for Sugarcane grown for seed, as a reduction in germination or vigor may occur.

Do not feed or graze treated Sugarcane forage following application.

Do not apply for enhanced ripening to any crops other than Sugarcane. 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.

APPLICATION RATES: Use the following application rates and timing instructions according to the State in which the Sugarcane is grown.

Note: Use the higher rate within the recommended range when treating Sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.



FLORIDA—Apply 5 to 12 fluid ounces of this product per acre 3 to 6 weeks before harvest of LAST RATOON CANE ONLY.

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

LOUISIANA—Apply 3.5 to 12 fluid ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

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

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

## Vegetable Crops

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

TYPES OF APPLICATIONS: Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, Prior to Transplanting Vegetables, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, Post-Harvest, Directed Applications (Non-Bearing Ginseng), Over-the-Top Wipers (Rutabagas Only).

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

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

## Brassica Vegetables

LABELED CROPS: Broccoli, Chinese broccoli (gai lon), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavali broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

## **Bulb Vegetables**

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

#### **Cucurbit Vegetables and Fruits**

LABELED CROPS: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), Melons (all), Momordica spp. (includes Balsam apple, Balsam pear, Bittermelon, Chinese cucumber), Muskmelon (includes Cantaloupe, Casaba, Crenshaw melon, Golden pershaw melon, Honeydew melon, Honey ball melon, Mango melon, Persian melon, Pineapple melon, Santa Claus melon, Snake melon), Pumpkin, Summer squash (includes Crookneck squash, Scallop squash, Straightneck squash, Vegetable marrow, Zucchini), Winter squash (includes Butternut squash, Calabaza, Hubbard squash, Acorn squash, Spaghetti squash), Watermelon.

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

## Leafy Vegetables

LABELED CROPS: Amaranth (Chinese spinach), Arugula (Roquette), Beet greens, Cardoon, Celery, Chinese celery, Celtuce, Chaya, Chervil, Edible-leaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (Garden and Upland), Dandelion, Dock (Sorrel), Dokudami, Endive (Escarole), Fforence fennel, Gow kee, Lettuce (Head and Leaf), Orach, Parsley, Purslane (Garden and Winter), Radicchio (Red chicory), Rhubarb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (Upland), Water spinach.

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

#### Fruiting Vegetables

LABELED CROPS: Eggplant, Groundcherry (*Physalis* spp.), Pepino, Pepper (includes Bell pepper, Chili pepper, Cooking pepper, Pimento, Sweet pepper), Tomatillo, Tomato.

PRECAUTIONS, RESTRICTIONS: For Eggplant, Ground cherry, Pepper (ail), and Tomatillo, allow at least 3 days between application and planting. For Tomato and Tomatillo, do not make hooded or shielded sprayer applications in row-middles because of the potential for crop injury.

#### Legume Vegetables (Succulent or Dried)

LABELED CROPS: Bean (Lupinus: includes Grain lupin, Sweet lupin, White lupin, and White sweet lupin), Bean (Phaseolus: includes Field bean, Kidney bean, Lima bean, Navy bean, Pinto bean, Runner bean, Snap bean, Tepary bean, Wax bean), Bean (Vigna: includes Adzuki bean, Asparagus bean, Blackeyed pea, Catjang, Chinese longbean, Cowpea, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea, Urd bean, Yardlong bean), Broad bean (Fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (Pisum: includes Dwarf pea, Edible-podded pea, English pea, Field pea, Garden pea, Green pea, Snowpea, Sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

#### Preharvest and Spot-Treatments of Weeds in Dry Beans

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

To minimize drift, use nozzles that emit medium to large-sized droplets. The likelihood of drift occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing, or when there are other meteorological conditions that favor spray drift. Extreme care must be used when applying this product to avoid injury to desirable plants and crops.

#### **Broadcast Spray**

USE INSTRUCTIONS: This product may be applied as an over-the-top broadcast spray to control labeled weeds prior to the harvest of Dry beans. Apply up to 22 fluid ounces in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30 percent grain moisture or less). Either ground broadcast or aerial applications may be made.

PRECAUTIONS, RESTRICTIONS: Apply at least 7 days before harvest. Only one application per year may be made; do not combine a preharvest spray with a spot treatment on the same crop area. Employ at least a 30-day plant-back interval between treatment and replanting for any crop not listed in this label. Prehavest application is not recommended for Dry beans grown for seed, as a reduction in germination or vigor may occur. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat Cowpeas, since this crop is considered to be grown as livestock feed.

#### Spot Treatments

USE INSTRUCTIONS: This product may be applied as a spot treatment to control troublesome weeds such as Canada thistle, Quackgrass, Mayweed (Dog fennel), and Milkweed in Dry beans. Apply up to 22 fluid ounces in 10 to 20 gallons of water through ground spray equipment or use a 2 percent solution in a hand-held sprayer. For best results, applications should be made at or beyond the bud stage of growth. The crop receiving spray in treated areas will be killed.

PRECAUTIONS, RESTRICTIONS: Apply at least 7 days before harvest. Only one application per year may be made; do not combine spot treatments with a preharvest broadcast spray on the same crop area. Employ at least a 30-day plant-back interval between treatment and replanting for any crop not listed in this labet. Do not feed treated vines and hay from these crops to livestock. Do not treat Cowpeas, since this crop is considered to be grown as livestock feed.

Preharvest and Spot-Treatments of Weeds in Dry Peas, Lentils, and Chickpeas in the States of Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, North Dakota, Oregon, South Dakota, Washington, and Wisconsin

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

See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for more information.

To minimize drift, use nozzles that emit medium to large-sized droplets. The likelihood of drift occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing, or when there are other meteorological conditions that favor spray drift. Extreme care must be used when applying this product to avoid injury to desirable plants and crops.

#### **Broadcast Spray**

USE INSTRUCTIONS: This product may be applied as an over-the-top broadcast spray to control labeled weeds prior to the harvest of Dry peas, Lentils, and Chickpeas. Apply up to 17 fluid ounces in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30 percent grain moisture or less). Either ground broadcast or aerial applications may be made.



PRECAUTIONS, RESTRICTIONS: Apply at least 14 days before harvest. Only one application per year may be made; do not combine a preharvest spray with a spot treatment on the same crop area. Employ at least a 30-day plant-back interval between treatment and replanting for any crop not listed in this label. Prehavest application is not recommended for Peas, Lentils, or Chickpeas grown for seed, as a reduction in germination or vigor may occur. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat Field (feed) peas, since these are considered to be grown as livestock feed.

#### **Spot Treatments**

USE INSTRUCTIONS: This product may be applied as a spot treatment to control troublesome weeds such as Canada thistle, Quackgrass, Mayweed (Dog fennel), and Milkweed in Peas, Lentils, and Chickpeas. Apply up to 17 fluid ounces in 10 to 20 gallons of water through ground spray equipment or use a 2 percent solution in a hand-held sprayer. For best results, applications should be made at or beyond the bud stage of growth. The crop receiving spray in treated areas will be killed.

PRECAUTIONS, RESTRICTIONS: Apply at least 14 days before harvest. Only one application per year may be made; do not combine spot treatments with a preharvest broadcast spray on the same crop area. Employ at least a 30-day plant-back interval between treatment and replanting for any crop not listed in this label. Do not feed treated vines and hay from these crops to livestock. Do not treat Field (feed) peas, since these are considered to be grown as livestock feed.

#### **Root and Tuber Vegetables**

LABELED CROPS: Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (Garden), Burdock, Canna, Carrot, Cassava (Bitter and Sweet), Celenac, Chayote (Root), Chervi (Turnip-rooted), Chicory, Chufa, Dasheen (Taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava (Turnip-rooted), Parsnip, Potato, Radish, Oriental radash, Rutabaga, Salsify, Black salsify, Spanish salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yam bean, True yam.

#### Directed Applications (Non-Bearing Ginseng Only)

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

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

#### Over-the-Top Wiper Applications (Rutabagas Only)

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

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

#### Miscelianeous Crops

LABELED CROPS: Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (Ground nut), Pineapple, Strawberry, Sugar beet.

TYPES OF APPLICATIONS: Those listed in the section "ANNUAL AND PERENNIAL CROPS" plus the following: General Weed Control, Site Preparation, Spot Treatment (Asparagus), Post-Harvest (Asparagus).

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

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

#### General Weed Control, Site Preparation

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

PRECAUTIONS, RESTRICTIONS: When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5 inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to insure that the wash water flushes off the plastic mulch and does not enter transplant holes. Allow at least 21 days between residue removal and transplanting. Applications made at emergence will result in injury or death to emerged seedlings.

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

#### Spot Treatment (Asparagus)

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

PRECAUTIONS, RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment. Post-Harvest (Asparagus)

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

PRECAUTIONS, RESTRICTIONS: Direct contact of the spray with the Asparagus may result in serious crop injury. Select and use recommended types of spray equipment for postemergence post-harvest 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.

## TREE, VINE, AND SHRUB CROPS (Alphabetical)

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

TYPES OF APPLICATIONS: Preplant (Site Preparation) Broadcast Sprays, General Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees, vines or bushes), Selective Equipment (shielded sprayers, wiper applications), Directed Sprays, Spot Treatment, Perennial Grass Suppression, Cut Stump.

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

GENERAL USE INSTRUCTIONS: This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for general weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. Apply 11 fluid ounces to 3.3 quarts per acre according to the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" sections of this label. Utilize rates at the higher end of the recommended rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 7 quarts per acre per year.

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

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

Allow a minimum of 3 days between application and transplanting.

#### Middles (between rows)

USE INSTRUCTIONS: This product will control or suppress Annual and Perennial weeds and ground covers growing between the rows of labeled tree and vine crops. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application

TANK MIXTURES: A tank mixture of this product plus Goal 2XL may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. This mixture is recommended when weeds are stressed or growing in dense populations. 11 to 22 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control Annual weeds with a maximum height or diameter of 6 inches, including Crabgrass, Common groundsel, Junglerice, Common lambsquarters, Redroot pigweed, London rocket, Common ryegrass, Shepherdspurse, Annual Sowthistle, Filaree (suppression), Horseweed/Marestail, Stinging nettle and Common purslane (suppression). 11 to 22 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control Common cheeseweed (Malva) or Hairy fleabane with a maximum height or diameter of 3 inches.



#### Strips (in rows)

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

Devrinol® 50-DF

Direx 4L

Goal 2XL

Karmex DF / Diuron 80 Herbicide

Krovar® 1

Prowl

Princep® Caliber™ 90 / Simazine 90DF

Simazine 4L

Simazine 80W

Sim-Trol® 4L

Solicam® DF

Surflan® AS

Surflan 75W

Do not apply these tank mixtures in Puerto Rico.

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

#### Perennial Grass Suppression

This product will suppress Perennial grasses such as Bahiagrass, Bermudagrass, Tall fescue, Orchardgrass, Kentucky bluegrass, and Quackgrass that are grown as ground covers in tree and vine crops.

For suppression of Tall fescue, Orchardgrass and Quackgrass, apply 4 fluid ounces of this product in 10 to 20 gallons of water per acre.

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

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

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

For suppression up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 2 to 3 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of Bermudagrass, apply 22 to 44 fluid ounces of this product in 3 to 20 gallons of water per acre. 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.

For suppression of Bermudagrass, apply 4 to 11 fluid ounces of this product per acre east of the Rocky Mountains and 11 fluid ounces of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the Bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when regrowth occurs and Bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 4 to 7 fluid ounces of this product per acre should be used in shaded conditions or where a lesser degree of suppression is desired.

### **Cut Stump**

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

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

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

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

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

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

## **Berry Crops**

LABELED CROPS: Blackberry (including Bingleberry, Black satin berry, Boysenberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, Coryberry, Darrowberry, Dewberry, Dirksen thornless berry, Himalayaberry, Hullberry, Juneberry, Lavacaberry, Lowberry, Lucretiaberry, Marionberry, Nectarberry, Olallieberry, Oregon evergreen berry, Phenomenalberry, Rangeberry, Ravenberry, Rossberry, Shawnee blackberry, and Youngberry), Blueberry, Cranberry, Currant, Eiderberry, Gooseberry, Huckleberry, Loganberry, Salal.

TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS" plus Spot Treatment in Cranberry Production and Post-Harvest Treatments in Cranberry Production.

PRECAUTIONS, RESTRICTIONS: To avoid damage, herbicide sprays must not be allowed to contact desirable vegetation, including green shoots, canes, or foliage. Allow a minimum of 30 days between last application and harvest in Cranberries. Allow a minimum of 14 days between last application and harvest in other berry crops. Do not make direct sprays within the Cranberry bush areas prior to berry harvest.

#### Spot Treatment in Cranberry Production

USE INSTRUCTIONS: Spot treatments may be used to control weeds growing in dry ditches (interior and perimeter) of Cranberry production areas. Handheld sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. Drop water level to remove standing water in ditches prior to application. In hand-held sprayers, use 1 to 1.5 percent solution of this product. Spray to wet vegetation, not to run-off.

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

#### Post-Harvest Treatments in Cranberry Production

USE INSTRUCTIONS: Application of this product may be made after the harvest of Cranberries to control weeds growing within the field. Best results will be obtained if applications are made to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers, or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. If using hand-held sprayers, use a 0.4- to 0.7-percent solution of this product. Spray to wet vegetation, not to runoff. If using hand-held boom sprayers, apply 44 to 86 fluid ounces of this product per acre.

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

#### Citrus

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

TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS".

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

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

For Goatweed, apply 44 to 64 fluid ounces of this product per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 44 fluid ounces per acre when plants are less than 8 inches tall and 64 fluid ounces per acre when plants are greater than 8 inches tall. If Goatweed is greater than 8 inches tall, the addition of Krovar I or Karmex may improve control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

PERENNIAL WEEDS					
	Amount of This Product Rate Per Acre				
Weed Species	0.7 qt.	1.3 qts.	2 qts.	3.3 qts.	
Bermudagrass	В	_	PC	С	
Guineagrass (Texas and Florida Ridge)	В	С	С	С	
Guineagrass (Florida Flatwoods)		В	С	С	
Paragrass	В	С	С	С	
Torpedograss	S	<u> </u>	PC	С	

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in Citrus crops. For Citron groves, apply as directed sprays only.

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

### Miscellaneous Tree Food Crops

LABELED CROPS: Cactus (Fruit and Pads), Palm (Heart, Leaves), Palm (Oil).

TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS".

#### Non-Food Tree Crops

LABELED CROPS: Pine, Poplar, Eucalyptus, Christmas trees, Other non-food tree crops.

TYPES OF APPLICATIONS: Those listed in the section \*TREE, VINE AND SHRUB CROPS\*.

#### Directed Sprays, Spot Treatment, Wiper Applications

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

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

#### Site Preparation

USE INSTRUCTIONS: This product may be used prior to planting.

PRECAUTIONS, RESTRICTIONS: Precautions should be taken to protect non-target plants during site preparation applications.

#### Pome Fruit

LABELED CROPS: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince.

TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS".

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in Pome crops.

#### Stone Fruit

LABELED CROPS: Apricot, Cherry (Sweet, Tart), Nectarine, Olive, Peach, Plum/Prune (all types), Plumcot.

TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS".

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 17 days between last application and harvest in Stone fruit crops. For Olive groves, apply as directed sprays only.

## Restrictions on Application Equipment

For Cherries, any application equipment listed in the section "TREE, VINE AND SHRUB CROPS" may be used in all states.

Any application equipment listed in the section "TREE, VINE AND SHRUB CROPS" 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 the 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 that have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

#### **Tree Nuts**

LABELED CROPS: Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (Hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (Black, English).

TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS".

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 3 days between last application and harvest of tree nuts, except Coconut. Allow 14 days between application and harvest in Coconut.

## Tropical and Subtropical Trees and Fruits

LABELED CROPS: Ambarella, Atemoya, Avocado, Banana, Barbados cherry (Acerola), Biriba, Blimbe, Breadfruit, Cacao (Cocoa) bean, Canistel, Carambola (Starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Llama, Imbe, Imbu, Jaboticaba, Jackfruit, Logan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (Genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (Black, Mamey, White), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (Roots and Leaves), Wax jambu.

TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS" plus Bananacide (Banana Only).

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in Banana, Guava, Papaya, and Plantain crops. Allow a minimum of 14 days between last application and harvest for any other tropical or subtropical tree fruit. Allow a minimum of 28 days between last application and harvest in Coffee crops, In Coffee and Banana, delay applications 3 months after transplanting to allow the new Coffee or Banana plant to become established.

#### Bananacide (Banana Only)

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

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

PRECAUTIONS, RESTRICTIONS: Do not apply more than 0.5 fluid ounce (15 milliliter) of this product's concentrate per mat (or unit). Remove all fruit from plants and mats (or units) prior to treatment. Do not harvest any fruit or plant materials from treated mats (or units) following injection. Do not allow livestock to consume treated plant materials. Following transplant of new Banana plants into treated areas, allow plants to become established for 3 months before applying this product for general weed control.

#### Vine Crops

LABELED CROPS: Grapes (Raisin, Table, Wine), Hops, Kiwi, Passion fruit. TYPES OF APPLICATIONS: Those listed in the section "TREE, VINE AND SHRUB CROPS".

USE INSTRUCTIONS: Applications should not be made when green shoots, canes or foliage are in the spray zone.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of Grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 14 days between last application and harvest in Vine crops. Do not use selective equipment in Kiwi.

## PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS

## Alfalfa, Clover, and Other Forage Legumes

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

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Preharvest (except Kenaf and Leucaena), Spot Treatment, Over-the-Top Wiper Applications, Renovation.

#### Preplant, Preemergence, At-Planting

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

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

#### Preharvest (except Kenaf and Leucaena)

USE INSTRUCTIONS: This product may be used in declining stands or any stand where severe crop injury or destruction is acceptable. This product will control Annual and Perennial weeds, including Quackgrass, when applied prior to crop harvest. Applications may be made at any time of the year. For control of Quackgrass, apply in the Spring, late Summer or Fall when Quackgrass is actively growing. Treatments for Quackgrass must be followed by deep tillage for complete control.

PRECAUTIONS, RESTRICTIONS: Make only one application to an existing crop stand per year. The treated crop and weeds can be harvested and fed to livestock according to the intervals below.

	Maximum Single Application Rate (per acre)	Minimum Interval (between application and harvest/grazing)
Alfalfa	44 fluid ounces	36 hours
All other labeled legumes above	32 fluid ounces	3 days

This application may destroy an Alfalfa stand and may severely injure or destroy other labeled crops such as Clover. Preharvest application is not recommended for Alfalfa grown for seed, as a reduction in germination or vigor may occur.



#### Spot Treatment, Over-the-Top Wiper Applications

USE INSTRUCTIONS: This product may be applied as a spot treatment or with wiper applicators. For wipers, see the "Wiper Applicators' in the "Selective Equipment" section of this label. Applications may be made in the same area at 30-day intervals.

PRECAUTIONS, RESTRICTIONS: For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled. No more than 10 percent of the total field area should be treated at one time. Remove domestic livestock before application and wait 3 days after application before grazing livestock or harvesting.

#### Renovation

USE INSTRUCTIONS: This product may be applied as a broadcast spray to renovate existing stands of Alfalfa, Clover, and other labeled forage legumes. If the crop is to be grazed or harvested for feed, use up to 44 fluid ounces per acre in Alfalfa and up to 32 fluid ounces per acre in other labeled legumes. For complete removal of established stands of Clover, it may be necessary to use the higher treatment rates listed in the "PERENNIAL WEEDS RATE TABLE" section.

PRECAUTIONS, RESTRICTIONS: When treatment rates of 44 fluid ounces per acre for Alfalfa or 32 fluid ounces per acre for other forage legumes are used, remove domestic livestock before application and wait 3 days after application before reintroduction. If treatment rates above these levels are necessary, do not graze or harvest treated foliage for livestock feed. Crops listed for treatment in this label may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

#### Conservation Reserve Program (CRP)

TYPES OF APPLICATIONS: Renovation (Rotating out of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Applications.

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

USE INSTRUCTIONS: This product may be used to prepare CRP land for crop production. Refer to Federal, State or local use guides for CRP renovation recommendations. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting.

## Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Applications

USE INSTRUCTIONS: This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 8 to 11 fluid ounces of this product per acre in early Spring before desirable CRP grasses, such as Crested and Tall wheatgrass, break dormancy and initiate green growth. Late Fall applications can be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS, RESTRICTIONS: Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2 quarts per acre per year onto CRP grasses.

## **Grass Seed or Sod Production**

LABELED CROPS: Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in this label under "Cereal and Grain Crops".

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Renovation, Site Preparation, Shielded Sprayers, Over-the-Top Wiper Applications, Spot Treatment, Creating Rows in Annual Ryegrass.

#### Preplant, Preemergence, At-Planting, Renovation, Site Preparation

USE INSTRUCTIONS: This product controls most existing vegetation prior to renovating Turf or Forage grass seed areas or establishing Turf grass grown for sod. Make applications before, during, or after planting or for renovation. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. 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. 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. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS, RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts. If application rates total 2 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting. Applications must be made prior to the emergence of the crop to avoid crop injury.

#### Shielded Sprayers

USE INSTRUCTIONS: Apply 22 to 64 fluid ounces of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields. For additional instructions, see "Shielded and Hooded Applicators" in the "Selective Equipment" section.

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

#### Over-the-Top Wiper Applications

USE INSTRUCTIONS: Applicators should be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds should be 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 height of weeds varies so that not all weeds are contacted. In these instance, repeat treatments may be necessary. For additional instructions, see "Wiper Applicators" in the "Selective Equipment' section.

PRECAUTIONS, RESTRICTIONS: Contact of the herbicide solution with desirable vegetation may result in damage or destruction.

## Spot Treatment

USE INSTRUCTIONS: Use a 1 percent solution.

PRECAUTIONS, RESTRICTIONS: Apply this product prior to heading of grasses grown for seed. The crop receiving the spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason. Hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

#### Creating Rows in Annual Ryegrass

USE INSTRUCTIONS: Use 11 to 22 fluid ounces of this product per acre. Use the higher rate when the Ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the Ryegrass reaches 6 inches in height.

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

Grower assumes all responsibility for crop losses from misapplica-

#### **Pastures**

LABELED CROPS: Any grass (Gramineae family) including Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass, except Corn, Sorghum, Sugarcane and those listed in this label under "Cereal and Grain Crops".

TYPES OF APPLICATIONS: Preplant, Preemergence, Pasture Renovation, Spot Treatment, Over-the-Top Wiper Applications, Postemergent Weed Control (Broadcast Treatments).

#### Preplant, Preemergence, Pasture Renovation

USE INSTRUCTIONS: This product may be applied prior to planting or emergence of Forage grasses. In addition, this product may be used to control perennial pasture species listed on this label prior to re-planting.

PRECAUTIONS, RESTRICTIONS: If application rates total 2 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed for treatment in this label may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

### Spot Treatment, Over-the-Top Wiper Applications

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

PRECAUTIONS, RESTRICTIONS: For spot treatments or wiper application methods using rates of 2 quarts per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper application are made using rates above 2 quarts per acre, no more than 10 percent of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

## Postemergent Weed Control (Broadcast Treatments)

USE INSTRUCTIONS: This product may be used to suppress competitive growth and seed production of Annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 8 to 11 fluid ounces of this product per acre in early Spring before desirable Perennial grasses break dormancy and initiate green growth. Late Fall applications can be made after desirable Perennial grasses have reached dormancy.



PRECAUTIONS, RESTRICTIONS: Some stunting of Perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Use of higher application rates will cause stand reductions. Do not apply more than 2 quarts per acre per year onto pasture grasses except for renovation uses (see instructions above). If replanting is needed due to severe stand reduction, applications must be made at least 30 days prior to planting any crop not listed for treatment in this label.

## For the Control of Annual Weeds in Coastal Bermudagrass Pastures Prior to Spring Growth or Immediately after First Cutting

USE INSTRUCTIONS: This product may be applied at 11 fluid ounces per acre to control the weeds listed below and most other Winter annual grass and broadleaf weeds in established costal Bermudagrass pastures.

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

#### TIMING OF APPLICATION:

Applications prior to Spring growth: Apply this product in the late Winter or early Spring but before new coastal Bermudagrass growth begins in the Spring. Applications to new growth can damage the Bermudagrass.

Remove domestic livestock from the pasture before making the application. Wait 60 days after making this application before grazing or harvesting the treated area.

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

Remove domestic livestock from the pasture before making the application. Wait 28 days after making this application before grazing or harvesting the treated area

NOTE: Only one application per year may be made to any one field. A Spring application prior to growth and an application following the first cutting may not be made on the field during the same year.

## Rangelands

TYPE OF APPLICATION: Postemergence

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

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

USE INSTRUCTIONS: Apply 8 to 11 fluid ounces of this product per acre to control or suppress many weeds, including Downy brome, Cheatgrass, Cereal rye and Jointed goatgrass in rangelands. Apply when most Brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the Spring following rain events further depletes the seed reserve and encourages Perennial grass conversion on weedy sites. Fall applications are possible, and recommended, where Spring moisture is usually limited and Fall germination allows for good weed growth.

For Medusahead, apply 11 fluid ounces of this product per acre at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Controlled burning may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in Medusahead-dominated rangelands.

PRECAUTIONS, RESTRICTIONS: 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. Do not use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding or livestock grazing is required. Do not apply more than 2 quarts per acre per year.

## **ROUNDUP READY CROPS**

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

DREXEL CHEMICAL COMPANY RECOMMENDS USE OF THIS PROD-UCT FOR POSTEMERGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY GENE. Applying this product to crop varieties that 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 that do not contain the Roundup Ready gene, since severe injury or destruction will result.

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

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

#### **Ground Applications**

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

#### **Aerial Applications**

For aerial applications apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

For proper stewardship of aerial applications over-the-top of Roundup Ready crops, growers and applicators must obtain, read and follow all precautions and procedures contained in the use guide "A Guide to On-Target Aerial Application" available by calling Drexel Chemical Company at (901) 774-4370

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

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

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

#### Sprayer Preparation

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

NOTE: The following recommendations are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burndown treatment of this product is recommended to control existing weeds prior to crop emergence. Some weeds, such as Black nightshade, Broadleaf signalgrass, Sicklepod, Texas panicum, Sandbur, Annual morningglory, Woolly cupgrass, Shattercane, Wild proso millet, Burcucumber, and Giant ragweed with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

## Weed Control Applications in Seed Production of Alfalfa with the Roundup Ready Gene

APPLICATION INSTRUCTIONS: This product will control many troublesome emerged weeds with over-the-top applications in Roundup Ready Alfalfa grown for seed. In-crop applications may be made from emergence through the late vegetative stage and spot treatments may be made from early bud stage through seed harvest.

#### **Ground Applications**

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

## **Aerial Applications**

For aerial application use the recommended rates of this product in 3 to 15 gatlons of spray solution per acre.



DO NOT EXCEED 44 FLUID OUNCES OF THIS PRODUCT PER ACRE WHEN MAKING APPLICATIONS BY AIR. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE BACK OF THIS LABEL FOR AERIAL APPLICATION IN THAT STATE. 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 that 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.

See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment.

#### 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 affalfa. Follow the cleaning procedures specified on the label of the product(s) used. Alfalfa can be very sensitive to many herbicides at extermely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

TYPES OF APPLICATIONS: Preplant, At-planting, Preemergence, Poste-mergence and Post-harvest of seed

#### Maximum Allowable Combined Application Rates

Combined total per year for all applications	5.3 quarts per acre
Preplant, At-planting and Preemergence applications	44 fl. oz. per acre
Total in-crop application rate from emergence through the late vegetative stage	4.0 quarts per acre
Spot-treatment during early bud stage through seed harvest	Apply spray-to-wet; do not apply to the point of runoff
(See the "Spot Treatment after late vegetative stage" section and the "PRECAUTIONS AND RESTRICTIONS" section of this label for complete instructions)	

There are no rotational crop restrictions following applications of this product. For any crop NOT listed in this label, applications must be at least 30 days prior to planting.

#### Over-the-top Applications

Broadcast applications of this product may be made using ground or aerial equipment in-crop on Roundup Ready Alfalfa from emergence through the late vegetative stage. Do not make broadcast applications of this product between the initiation of alfalfa budding and the harvest of seed. Any single over-the-top broadcast application of this product should not exceed 44 fluid ounces per acre. Sequential applications of this product should be at least 7 days apart.

Due to the biology and breeding constraints of Alfalfa, up to 10% of the seedlings may not contain the Roundup Ready gene and will not survive or thrive after the first application of this product. To limit undesirable effects of stand gaps created by the loss of plants not containing the Roundup Ready gene, a single application of at least 22 fluid ounces per acre of this product should be applied at or before the 3 to 4 trifoliate growth stage.

## Spot Treatment After Late Vegetative Stage

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

## Post-harvest Applications

Following harvest of Roundup Ready alfalfa seed, the stand may be managed for forage and hay production. Refer to this product's supplemental label "FOR WEED CONTROL APPLICATIONS IN FORAGE AND HAY PRODUCTION OF ALFALFA WITH THE ROUNDUP READY GENE".

## Weeds Controlled

For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL WEEDS RATE TABLE" and the "PERENNIAL WEEDS RATE TABLE" in this label. Some weeds with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some regrowth of weeds has occurred.

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

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

During stand establishment, for applications made prior to the 4-trifoliate growth stage, the use of ammonium sulfate may result in crop injury and is not recommended. Refer to the "MIXING" section of this label for use instructions for ammonium sulfate.

PRECAUTIONS AND RESTRICTIONS: Do not make over-the-top broadcast applications of this product between the initiation of Alfalfa budding and the harvest of Roundup Ready Alfalfa seed. If a spot treatment of this product is made after the late vegetative stage, do not use harvested Roundup Ready Alfalfa seed for Alfalfa sprout production. Regardless of applications made, the use of harvested Roundup Ready Alfalfa seed is not suitable, and is not recommended for production of Alfalfa sprouts.

### Canola with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence

DO NOT USE THIS PRODUCT ON CANOLA WITH THE ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA

USE INSTRUCTIONS: This product will control many troublesome emerged weeds when applied preplant, preemergent and/or with over-the-top applications in Roundup Ready canola, Allow a minimum of 60 days between last application and Canola harvest.

#### Maximum Allowable Combined Application Quantitles Per Season

Preplant, At-planting, Preemergence applications	44 fl. oz per acre
Total in-crop application rate from emergence to 6-leaf stage (Spring varieties) or prior to bolting in the Spring (Winter varieties)	22 fl. oz. per acre

#### **Ground Applications**

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

#### **Aerial Applications**

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

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.

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

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.

There are no rotational crop restrictions following applications of 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 Canola. Follow the cleaning procedures specified on the label of the product(s) previously used. Canola can be very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

#### Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied before, during or after planting Canola by aerial or ground application equipment. The maximum combined application rate from all preplant and pre-emergent applications should not exceed 44 fluid ounces per acre per season.

NOTE: In no-till and stale seedbed systems, always use a burndown treatment to control existing weeds before Canola emerges. Apply a preplant burndown treatment of 11 to 22 fluid ounces per acre of this product.

## Roundup Ready Spring Canola Varieties

Roundup Ready Spring Canola is defined as those Roundup Ready Canola varieties that are seeded in the Spring and harvested in the Fall, and do not enter a Winter dormancy period.



#### Postemergence

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

WEEDS CONTROLLED: For specific rates of application and instructions, refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE TABLES" in this label.

<u>Single Application</u>—Apply 11 to 16 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 11 fluid ounces per acre are applied after the 4-leaf stage.

Sequential Application—Apply 11 fluid ounces per acre to 1- to 3-leaf Canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are recommended for early emerging annual weeds and perennial weeds such as Canada thistle and Quackgrass or when controlling weeds with multiple application times.

This product will control or suppress, most Perennial weeds. For some Perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application should not exceed 22 fluid ounces per acre. Allow a minimum of 60 days between last application and Canola harvest.

## Roundup Ready Winter Canola

Roundup Ready Winter Canola is defined as those Roundup Ready Canola varieties that are seeded in the Fall and harvested the following Spring or Summer. Winter Canola varieties are intended to enter a cold period dormancy in the Winter.

#### Postemergence

USE INSTRUCTIONS: This product may be applied by aerial or ground application equipment postemergence to Roundup Ready Winter Canola varieties from emergence to the 6-leaf stage in the Fall and prior to bolting in the Spring. Applications made during or after bolting may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds. Allow a minimum of 60 days between last application and harvest.

<u>Single Application</u>—Apply 11 to 16 fluid ounces per acre in the Fall and no later than the 6-leaf stage for the control of Annual weeds. Avoid overlapping applications which may result in temporary yellowing, delayed flowering, and growth reduction.

Sequential Applications—Apply 11 fluid ounces per acre to 1 to 3-leaf Canola in the Fall, followed by a sequential application at a minimum interval of 10 days, but before bolting in the Spring. Sequential applications are recommended for early emerging annual weeds and Winter emerging weeds such as Downey brome, Jointed goatgrass and Ryegrass.

This product will control or suppress, most Perennial weeds. For some Perennial weeds, sequential applications may be required to eliminate crop competition throughout the growing season.

PRECAUTIONS, RESTRICTIONS: No more than two over-the-top broadcast applications may be made from crop emergence up the onset of bolting and the total in-crop application must not exceed 22 fluid ounces per acre. Allow a minimum of 60 days between last application and Canola harvest.

#### Weeds Controlled

For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE TABLE".

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

Some weeds with multiple germination times or suppressed (stunted) weeds may require sequential applications of this product for control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

### Corn with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (in-crop), Spot Treatment, Preharvest, Post-Harvest.

### Maximum Allowable Combined Application Quantities Per Season

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Combined total per year for all applications	5.3 quarts per acre
Preplant, At-planting, Preemergence applications	3.3 quarts per acre
Total in-crop applications from emergence through the V8 stage or 30 inches	44 fluid ounces per acre
Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest	22 fluid ounces per acre

#### Preplant, Preemergence, At-Planting

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

TANK MIXTURES: This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso or Micro-Tech at 50 to 100 percent of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines—the more restrictive requirements apply.

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

#### Postemergence (in-crop)

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

This product may be applied over-the-top broadcast, or with drop nozzles. When Corn height is 24 to 30 inches (free standing), for optimum spray coverage and weed control, drop nozzles are recommended. For Corn heights 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles adjusted to avoid spraying into the whorls of the Corn plants.

Single in-crop applications of this product should not exceed 22 fluid ounces per acre. The maximum combined total of multiple in-crop applications from emergence through the 48-inch stage is 44 fluid ounces per acre.

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready Com. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. The postemergent application of 16 to 22 fluid ounces per acre of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inches tall weeds or less.

This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 16 to 22 fluid ounces per acre will control the labeled grasses and broadleaf weeds.

TANK MIXTURES: This product may be applied in tank mixture with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L or Micro-Tech at 50 to 100 percent of labeled rate. This product may be applied in tank mixture with Permit® and Atrazine at labeled rates. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines—the more restrictive requirements apply.

Tank-Mix Partner	Maximum Height of Corn For Application
Degree Degree Xtra Harness Harness Xtra Harness Xtra 5.6L	11 inches
Bullet* Micro-Tech*	5 inches
Permit	30 inches
Atrazine	12 inches

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. Single in-crop applications of this product are not to exceed 22 fluid ounces per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 44 fluid ounces per acre per growing season. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product and harvest of Corn forage.



#### Preharvest

USE INSTRUCTIONS: In Roundup Ready Corn, up to 22 fluid ounces per acre of this product can be applied preharvest. Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the Corn is physiologically mature (black layer formed).

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

#### Post-Harvest

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

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

## For Postemergence Applications to Roundup Ready Corn 2 See "Annual Maximum Use Rate" in the "GENERAL INFORMATION" section of this label for additional information.

The use of the higher in-crop over-the-top rates described in this section on other than Roundup Ready Corn 2 may cause crop injury and reduce yields.

#### **Application Instructions**

For Roundup Ready Corn 2 from emergence through the V8 stage (8 leaves with collars) or until Corn height reaches 30 inches, whichever comes first, this product may be applied over-the-top broadcast or with drop nozzles. When Corn height is 24 to 30 inches (free standing), for optimum spray coverage and weed control, drop nozzles are recommended. For Corn heights 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles adjusted to avoid spraying into the whorls of the Corn plants.

Single in-crop applications of this product should not exceed 1 quart per acre.

#### Maximum Allowable Combined Application Quantities Per Season

Preplant, At-planting, Preemergence applications.	3.3 qts. per acre
Postemergence (in-crop): Maximum combined total of multiple in-crop applications from emergence through the 48 inch stage.	2 qts. per acre
Preharvest: Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) with 35 percent grain moisture or less until 7 days before harvest. See Precautions and Restrictions on preharvest applications.	22 fluid ozs. per acre.
Cropping Season: Combined total per year for all applications.	5.3 qts. per acre

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

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.

#### **Ground Applications**

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.

## **Aerial Applications**

For aerial applications use the recommended rates of this product in 3 to 15 gallons of spray solution per acre. Do not exceed 22 fluid ounces per acre. See "WEEDS CONTROLLED" section on this label. 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 16 to 22 fluid ounces of this product per acre for control of labeled grasses and broadleaf weeds in conventional and no-till Corn production systems. Refer to the section "ANNUAL WEEDS RATE TABLE" for rate recommendations for specific annual weeds. This product applied at up to 1 quart 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 Wirestern muhly. For additional information on Perennial weeds, see the "PERENNIAL WEED RATE TABLE" of this label.

#### Preplant, Preemergence, At-Planting

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

TANK MIXTURES: This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso or Micro-Tech herbicides at 50 to 100 percent of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines - the more restrictive requirements apply.

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

Preemergence followed by Postemergence Weed Control Program

USE INSTRUCTIONS: This product may be applied post-emergence incrop following any labeled pre-emergence 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.

An 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 over-the-top broadcast or with drop nozzles postemergence to Roundup Ready Corn 2 from emergence through the V8 stage (8 leaves with collars) or until Corn height reaches 30 inches (free standing), whichever comes first. When Corn height is 24 to 30 inches drop nozzles are recommended roptimum spray coverage and weed control. For Corn heights 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles and avoid spraying into the whorls of the Corn plants.

#### Postemergence Only Weed Control Program

USE INSTRUCTIONS: 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 16 to 22 fluid ounces per acre will control the labeled grasses and broadleaf weeds. This product may be applied over-the-top broadcast or with drop nozzles postemergence to Roundup Ready Corn 2 from emergence through the V8 stage or until Corn height reaches 30 inches (free standing), whichever comes first. When Corn height is 24 to 30 inches drop nozzles are recommended for optimum spray coverage and weed control. For Corn height 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles and avoid spraying into the whorts of the Corn plants.

TANK MIXTURES: This product may be applied in tank mixture with a labeled rate of Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Micro-Tech and Bullet herbicides at 50 to 100 percent of labeled rate. This product may be applied in tank mixture with Permit and atrazine at labeled rates. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum re-cropping intervals 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
Degree Degree Xtra Hamess Hamess Xtra Hamess Xtra 5.6L	11 inches
Bullet* Micro-Tech*	5 inches
Permit	30 inches
Atrazine	12 inches
*Bullet and Micro-Tech are not registered for	or use as a postemergence application

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS' section of this label for general precautionary instructions for use in Roundup Ready Crops. Single in-crop applications of this product should not exceed 1 quart per acre. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product and harvest of Corn forage or grain. For applications at preharvest timing (see Preharvest section of this label), allow a minimum of 7 days between application and harvest or feeding of Corn stover or grain. There are no rotational crop restrictions following applications of this product.

#### Preharvest

USE INSTRUCTIONS: A single preharvest application of up to 22 fluid ounces per acre of this product may be made, if no more than a total of 44 fluid ounces of this product has been previously applied in over-the-top or drop nozzle applications. Make a preharvest application at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the Corn is physiologically mature (black layer formed).

PRECAUTIONS, RESTRICTIONS: Do not make a preharvest application of this product if more than a combined total of 44 fluid ounces of this product has been previously applied in over-the-top or drop nozzle applications. Allow a minimum of 7 days between a preharvest application and harvest or feeding of Corn stover or Grain.

#### Postharves:

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

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

## For Control and Management of Glyphosate Resistant Horseweed (Marestall, Conyza-canadensis) in Roundup Ready Corn Hybrids Only

USE INSTRUCTIONS: For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre. For tank-mix recommendations, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

#### In-cros

In-crop Roundup Ready Corn, apply a tank-mixture of this product (22 fluid ounces per acre) plus Clarity (8 to 16 fluid ounces per acre) or 2,4-D (0.5 to 1.0 pounds a.i. per acre). Apply between Corn emergence and the 5-leaf stage of growth (approximately 8 inches tall).

#### Cotton with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence (Over-the-Top), Selective Equipment, Preharvest.

## Maximum Allowable Combined Application Quantities Per Season

Combined total per year for all applications	5.3 quarts per acre
Preplant, At-planting, Preemergence applications	3.3 quarts per acre
Total in-crop applications from ground cracking to layby	2.5 quarts per acre
Maximum preharvest application rate	44 fluid ounces per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS' section of this label for general precautionary instructions for use in Roundup Ready crops. The combined total application of this product from Cotton emergence until harvest must not exceed 4 quarts per acre. No more than two over-the-top broadcast applications may be made from crop emergence through the 4-leaf (node) stage of development. No more than two applications should be made from the 5-leaf stage through layby. Sequential in-crop over-the-top or post-directed applications of this product must be at least 10 days apart and Cotton must have at least two nodes of incremental growth between applications. Allow a minimum of 7 days between application and harvest.

#### Preplant, Preemergence, At-Planting

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

### Postemergence (Over-the-Top)

USE INSTRUCTIONS: This product may be applied by aerial or ground application equipment at rates up to 22 fluid ounces per acre per application postemergence to Roundup Ready Cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the 4-leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss.

Salvage Treatment. This treatment may be used after the 4-leaf stage of development and should only be used where weeds threaten to cause the loss of the crop. 22 fluid ounces per acre may be applied either as an over-the-top applications or as a post-directed treatments sprayed higher on the Cotton plants and over the weeds. NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT SHOULD BE USED PER GROWING SEASON.

NOTE: For specific rates of application and instructions, refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE TABLES" in this label. PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS"

section of this label for general precautionary instructions for use in Roundup Ready crops.

## Selective Equipment

USE INSTRUCTIONS: This product may be applied using precision post-directed or hooded sprayers at rates up to 22 fluid cunces per acre per application 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 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).

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

#### Preharvest

USE INSTRUCTIONS: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready Cotton after 20 percent boll crack. Up to 44 fluid ounces of this product may be applied using either aerial or ground spray equipment. NOTE: This product will not enhance the performance of harvest aids when applied to Roundup Ready Cotton.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest of Cotton. Do not apply this product to Cotton grown for seed, as a reduction in germination or vigor may occur.

## For Cotton with the Roundup Ready Gene for Application (Arizona Only)

ATTENTION: Drexel Chemical Company recommends this product for use only over-the-top of or directed onto improved Cotton varieties that are designated as Cotton with the Roundup 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.

Roundup Ready Cotton varieties must be purchased from an authorized licensed seed supplier. The designation, "Roundup Ready" indicates the Cotton variety contains a patented proprietary trait.

See "GENERAL INFORMATION" and "MIXING" sections of this tabel for essential product performance information.

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Over-the-top, Selective Equipment, Preharvest

#### Maximum Allowable Combined Application Quantities Per Season

Combined total per year for all applications	5.3 quarts per acre
Preplant, At-planting, Preemergence applications	3.3 quarts per acre
Total in-crop applications from ground cracking to layby	2.5 quarts per acre
Total in-crop over-the-top from ground cracking to 4-leaf stage.	2.0 quarts per acre
Total in-crop applications using selective equipment through layby	1.3 quarts per acre
Maximum preharvest application rate	44 fluid ounces per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. Do NOT combine these instructions with other recommendations made for crop varieties that do not contain the Roundup Ready gene, see the "ANNUAL AND PERENNIAL CROPS (Alphabetical)" section of this label. The combined total application of this product from Cotton emergence until harvest must not exceed 4 quarts per acre.

No more than two over-the-top broadcast applications may be made from crop emergence through the 4-leaf (node) stage of development.

No more than two post-directed applications should be made from the 5-leaf stage through layby.

Sequential in-crop over-the-top or post-directed applications of this product must be at least 10 days apart and Cotton must have at least two nodes of incremental growth between applications.

Allow a minimum of 7 days between application and harvest. Applications made in excess of maximum label rates are expected to result in boll loss, delayed maturity and/or yield loss and are the sole responsibility of the grower.

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

#### Preplant, At-Planting, and Preemergence

 $\ensuremath{\mathsf{USE}}$  INSTRUCTIONS: This product may be applied before, during or after planting Cotton.

#### Over-the-Top

USE INSTRUCTIONS: This product may be applied by aerial or ground application equipment at rates up to 22 fluid ounces per acre per application postemergence to Roundup Ready Cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Unless otherwise directed in supplemental labeling, any single over-the-top broadcast application should not exceed 22 fluid ounces per acre. Combined over-the-top applications between ground cracking until the 4-leaf (node) stage should not exceed 2.0 quarts per acre.



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

#### Selective Equipment

USE INSTRUCTIONS: This product may be applied in-crop using precision post-directed or hooded sprayers to Roundup Ready Cotton through layby. Unless otherwise directed in supplemental labeling, any single application using selective equipment should not exceed 22 fluid ounces per acre. Sequential in-crop applications using selective equipment may be made up to a maximum of 1.3 quarts per acre.

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). PRECAUTIONS, RESTRICTIONS: See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment. The combined total of in-crop over-the-top plus selective equipment applications must not exceed 2.6 quarts per acre.

#### Salvage Treatment

USE INSTRUCTIONS: From the ground cracking stage through layby, where weeds threaten to cause the loss of the crop, applications of up to 32 fluid ounces 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: CROP TOLERANCE OF ROUNDUP READY COTTON HAS NOT BEEN FULLY TESTED AT THIS APPLICATION RATE. SALVAGE TREATMENTS ARE EXPECTED TO RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS AND ARE THE SOLE RESPONSIBILITY OF THE GROWER. NO MORE THAN TWO SALVAGE TREATMENTS SHOULD BE USED PER GROWING SEASON.

PRECAUTIONS, RESTRICTIONS: The combined total of in-crop over-thetop plus selective equipment applications must not exceed 2.6 quarts per acre.

## Preharvest

USE INSTRUCTIONS: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready Cotton after 20 percent boll crack. Up to 1.3 quarts per acre of this product may be applied using either aerial or ground spray equipment.

NOTE: This product will not enhance the performance of harvest aids when applied to Roundup Ready Cotton.

PRECAUTIONS, RESTRICTIONS: allow a minimum of 7 days between application and harvest of Cotton. Do not apply this product preharvest to Roundup Ready Cotton grown for seed.

#### For Control and Management of Glyphosate Resistant Horseweed (Marestail, *Conyza canadensis*) in Roundup Ready Cotton Varietles Only

USE INSTRUCTIONS: For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre. For tank-mix recommendations, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

#### Post-directed

Management of early season weed competition and the development of a crop height differential between Cotton and the Horseweed is often achieved by a combination of preplant burndown and post emergent over-the-top and/or directed applications of this product. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. In-crop post-directed applications of MSMA (2 pounds active ingredient per acre) tank-mixed with diuron (0.5 to 0.75 pounds active ingredient per acre) should be made when the temperature is 80°F or higher.

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.

## Soybeans with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence, Preharvest, Post-Harvest.

#### Maximum Allowable Combined Application Quantities Per Season

Combined total per year for all applications	5.3 quarts per acre
Preplant, At-planting, Preemergence applications	3.3 quarts per acre
Total in-crop applications from cracking throughout flowering	64 fluid ounces per acre
Maximum preharvest application rate	22 fluid ounces per acre

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

#### Preplant, Preemergence, At-Planting

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

#### Postemergence

USE INSTRUCTIONS: When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready Soybeans. Applications of this product can be made in Roundup Ready Soybeans from emergence (cracking) throughout flowering. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for rate recommendations for specific annual weeds. In general, an initial application of 22 fluid ounces per acre on 2 to 8 inch tall weeds is recommended. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 44 fluid ounces per acre in any single in-crop application for control of annual weeds and where heavy weed densities exist.

A 22- to 44-fluid ounce per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: Bermudagrass, Canada thistle, Common milkweed, Field bindweed, Hemp dogbane, Horsenettle, Marestail (horseweed), Nutsedge, Quackgrass, Rhizome johnsongrass, Redvine, Trumpetcreeper, Swamp smartweed and Wirestern muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions such as drought, hail, wind damage or a poor Soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP. To control Giant ragweed, it is recommended that 22 fluid ounces per acre of this product be applied when the weed is 8 to 12 inches tall to increase control and possible avoid the need for a sequential application.

PRECAUTIONS, RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 64 fluid ounces per acre. The maximum rate for any single in-crop application is 44 fluid ounces per acre. The maximum combined total of this product that can be applied during flowering is 44 fluid ounces per acre.

#### **Preharvest**

USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of Soybeans. Up to 22 fluid ounces per acre of this product can be applied by aerial or ground application.

PRECAUTIONS, RESTRICTIONS: Care should be taken to avoid excessive seed shatter loss due to ground application equipment. Allow a minimum of 14 days between final application and harvest of Soybean grain or feeding of Soybean grain, forage or hay.

#### Post-Harvest

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

Soybeans with Roundup Ready Gene in the State of California Only

The California Department of Pesticide Regulation has reviewed and authorized the use of this product for applications in Roundup Ready Soybeans. Applicators must read and follow the Directions for Use specified in the "Soybeans with the Roundup Ready Gene" section of this label.

#### For Control and Management of Glyphosate Resistant Horseweed (Marestail, *Conyza canadensis*) in Roundup Ready Soybean Varieties Only

USE INSTRUCTIONS: For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre. For tank-mix recommendations, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

#### In-crop

It is strongly encouraged that Horseweed should be controlled prior to planting using recommended preplant burndown treatments. In-crop Roundup Ready Soybeans, apply a tank mixture of this product (22 fluid ounces per acre) with Amplify (0.3 ounces per acre). This treatment should be used as a salvage treatment only for a Horseweed infestation that was not controlled



preplant. Application should be made between full emergence of the first trifoliate leaf and 50% flowering stage of Soybeans. At the time of treatment, Horseweed should not exceed 6 inches in height.

## Sugar Beets with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence.

#### Maximum Allowable Combined Application Quantities Per Season

Combined total per year for all applications	5.3 quarts per acre
Preplant, At-planting, Preemergence applications	3.3 quarts per acre
Emergence to 8-leaf stage	56 fluid ounces per acre
Between 8-leaf stage and canopy closure	44 fluid ounces per acre

PRECAUTIONS, RESTRICTIONS: See the "ROUNDUP READY CROPS" section of this label for general precautionary instructions for use in Roundup Ready crops. The combined total application from crop emergence through harvest must not exceed 3 quarts per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 32 floud ounces per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 22 fluid ounces per acre. Allow a minimum of 30 days between last application and Sugar beet harvest.

#### Prepiant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied before, during or after planting of Roundup Ready Sugar beets.

#### Postemergence

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

#### NON-CROP USES AROUND THE FARMSTEAD

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

## General Weed Control and Trim-and-Edge

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

TANK MIXTURES: This product may be tank mixed with the following products, provided that the specific product is registered for use on such non-crop sites. Refer to these product labels for approved farmstead sites and application rates. For annual weeds, use 22 fluid ounces per acre of this product when weeds are less than 6 inches tall, 32 fluid ounces per acre when weeds are 6 to 12 inches tall and 44 fluid ounces per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 44 fluid ounces to 3.3 quarts per acre in these tank mixes. For tank mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the "Annual Weeds—Hand-Held or High-Volume Equipment" section of this label for recommended rates.

Arsenai\* Plateau\* Banvel/Clarity Princep DF Barricade® 65WG Princep 4L Ronstar® 50 WP Diuron Sahara® Endurance\* Escort® Simazine Karmex DF Surflan Krovar I DE Telar® Oust® Vanquish<sup>®</sup> Pendulum® 3.3 EC 2.4-D Pendulum WDG

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

## Greenhouse/Shadehouse

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

## **Chemical Mowing**

USE INSTRUCTIONS: This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 4 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 4 fluid ounces of this product per acre when treating Tall fescue, Fine fescue, Orchardgrass, Bahiagrass or Quackgrass covers. Use 11 fluid ounces of this product per acre when treating Bermudagrass. Use 44 fluid ounces of this product per acre when treating Torpedograss or Paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

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

#### Cut Stump

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

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

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

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

## **Habitat Management**

TYPES OF USES: Habitat Restoration and Maintenance, Wildlife Food Plots.

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

#### Wildlife Food Plots

USE INSTRUCTIONS: This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage.

## ANNUAL WEEDS RATE TABLE (Alphabetically by Species)

Listed Rates Apply for Water Carrier Volumes of 3 to 10 Gallons per Acre for Ground Applications and 3 to 5 Gallons per Acre for Aerial Applications.

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

Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.

For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

This product may be used up to 44 fluid ounces per acre where heavy weed densities exist.

AL WEEDS	S RATE	TABLE		
	RATE (fluid ounces per acre)			
11	16	22	27	32
Max	imum he	ight/leng	th (in inc	hes)
3	6	12		18
-	2	3	5	8
18	18+	•	-	-
-	3	6	7	9
-		6	-	
-	5	8	-	-
12	20	-	-	-
10	-	-	-	-
6	-		-	-
6	12	-		-
	11 Max 3 - 18 12 10 6	(fluid o  11 16  Maximum he  3 6  - 2  18 18+  - 3  - 5  12 20  10 -  6 -	### (#fluid ounces potential)  ### ### ### ### ### ### ### ### ### #	RATE   (fluid ounces per acre)



ANNUA	L WEEDS	S RATE			
		(fluid c	RATE Sunces pe	ег асге)	
	11	16	22	27	32
WEED SPECIES		kimum he			<u> </u>
Mayweed	1 -	2	6	12	18
Morningglory, annual	+	<u> </u>	1		+
(Ipomoea spp)	-	ļ <u>-</u>	3	<u> </u>	6
Mustard, blue	6	12	18	<u> </u>	-
Mustard, tansy	6	12	18		
Mustard, tumble	6	12	18	·	-
Mustard, wild	6	12	18		-
Nightshade, black	-	4	6		12
Nightshade, hairy	-	4	6	-	12
Oats	3	6	18	-	-
Pigweed species	·	12	18	24	<u> </u>
Prickly lettuce	-	6	12		·
Purslane			3	<u> </u>	6
Ragweed, common	-	6	12	<u> </u>	18
Ragweed, giant	<u> </u>	6	12	-	18
Red rice	<u> </u>	-	4	·	
Rye, volunteer/cereal 2	6	18	18+	·_	-
Ryegrass	-	-	6	-	12
Sandbur, field	6	12	-	<del> </del>	
Sandbur, longspine	6	12			-
Shattercane	6	12	20	-	
Shepherd's-purse	6	12	- 20	-	
Sicklepod	-	2	4	<u> </u>	8
Signalgrass, broadleaf	-	3	6	7	9
Smartweed, ladysthumb	-	-	6	<del></del>	9
Smartweed, ladystiding	1.	-	6	-	9
Smanweed, Penrsylvania Sowthistle, annual	+ :	-	6		12
Spanishneedles	<del>                                     </del>		6	<del>-</del> -	12
Spanisnneedles Speedwell, purstane	12	-		-	12
<u> </u>	6	12	20		
Sprangletop Source prostrate	<del> </del>	6	12	<del></del>	-
Spurge, prostrate Spurge, spotted	<del>  -</del>	6	12	-	-
Spurge, spotted Spurry, umbrella	6	-	<del>}</del>	-	-
Spurry, umbrella Stinkgrass	6	- 12	-	- '	-
Stinkgrass Sunflower	12	12	-		-
Sunnower Swinecress	12	18 5	12		-
Swinecress Teaweed/Prickly sida	-	2	12	<u> </u>	6
Texas panicum	- 6	8	12	-	24
lexas panicum Thistle, Russian 5	1 .	6	12		. 24
Thistle, Hussian * Velvetleaf		-	<del>                                     </del>	-	12
	-		6		12
Virginia pepperweed	<del>                                     </del>	18	- 6		12
Waterhemp Wheat 2	6	<del> </del>	18	-	
Wheat 2	6	12	18	- -	18
Wheat (overwintered)	- 3	6	12	-	18
Wild cats	3	6	18	-	18
Wild proso millet	<del>  -</del> -	6	12	-	18
Witchgrass		12	·	-	<del>-</del>
Woolly cupgrass	1 - 1	6	12		

- For control of downy brome in no-till systems, use 16 fluid ounces per acre.

  Performance is better if application is made before this weed reaches the boot stage of
- Performance is better if application is made section.
  Use 16 fluid ounces per acre of this product to control Wild buckwheat in the cotyledon to 2-leaf stage. Use 22 fluid ounces per acre to control 2- to 4-leaf Wild buckwheat. For improved control of Wild buckwheat over 2 inches in size, use sequential treatments of 22 fluid ounces followed by 22 fluid ounces of this product per acre.
  Do not treat Kochta in the button stage.
  Control of Russian thistle may vary based on environmental conditions and spray coverage. Whenever possible, a tank mixture with 2,4-D as described below may improve control.

	<u> </u>	<del></del>	RATE		
		(fluid		oer acre)	
	11	16	22	27	32
WEED SPECIES	Ma	ximum ho	eight/len	gth (in inc	ches)
Brome, Japanese	6	12	24	-	-
Browntop panicum	6	8	12	-	24
Buckwheat, wild 3	-	1	2	Ī -	-
Burcucumber	-	6	12	-	18
Buttercup	12	20		-	-
Carolina geranium	-	-	4		9
Carpetweed	-	6	12	] -	
Cheat <sup>2</sup>	6	20		<u> </u>	-
Chervil	20	-	<u>                                      </u>	<u> </u>	<u> </u> -
Chickweed	-	12	18	-	-
Cocklebur	12	18	24	<u> </u>	36
Copperleaf, hophombeam	<u> </u>	2	4	<u> </u>	6
Copperleaf, Virginia	-	2	4		6
Coreopsis, plains	-	6	12	-	18
Com, volunteer	6	12	20	.	<u>  -</u>
Com speedwell	12	-	-	-	-
Crabgrass	3	6	12	<u> </u>	<u> </u>
Crowfootgrass	-	-	6	<u>  -                                   </u>	12
Cutleaf evening primrose	-	<u> </u>	3	<u> </u>	6
Devilsclaw (unicom plant)		3	6	1 -	-
Dwarfdandelion	12	<u> </u>	<u> </u>	-	-
Eastern mannagrass	8	12	-	-	-
Eclipta	ļ	4	8	12	<u> </u>
Fall panicum	4	-	6		12
Falsedandelion	-	20	-		-
Falseflax, smallseed	12	· .		<u> </u>	
Fiddleneck	-	6	12		<u>                                     </u>
Field pennycress	6	12	-	<u> </u>	<u>                                      </u>
Filaree	-	<u> </u>	6	<u> </u>	12
Fleabane, annual	6	20	-	<u> </u>	<u> </u>
Fleabane, hairy (Conyza bonariensis)		-	6	-	10
Fleabane, rough	3	6	12	-	
Florida pusitey		<u> </u>	4	-	6
Foxtail, giant, bristly, yellow	6	12	20	<u> </u>	-
Foxtail, Carolina	10	-	-	<u> </u>	<u> </u>
Foxtail, green	12		-	-	<u> </u>
Goatgrass, jointed	6	12		-	-
Goosegrass		3	6	<u> </u>	12
Grain sorghum (milo)	6	12	20	<u> </u>	<u> </u>
Groundcherry	<u> </u>	3	6	<u> </u>	9
Groundsel, common	<del>  -</del> -	6	10	-	<u> </u>
lemp sesbania	<u> </u>	2	4	6	8
denbit	<u> </u>	-	- 6	<u> </u>	12
lorseweed/Marestail (Conyza canadensis)	-	6	12	-	18
chgrass	6	8	12		18
limsonweed	<u> </u>	-	12	-	18
lohnsongrass, seedling	6	12	18	•	24
lunglerice	ļ -	3	6	7	9
Cnotweed	1 :	-	6	· ·	12
(ochia *	<u> </u>	3 to 6	12	-	-
ambsquarters	-	6	12	-	20
ittle barley	6	12			-
ondon rocket	6	-	24		-

## Annual Weeds — Rates for Higher Water Carrier Volumes

For ground application with water carrier volumes between 11 and 40 gallons per acre and aerial applications between 6 and 15 gallons per acre, apply 22 to 44 fluid ounces of this product per acre. Use 22 fluid ounces per acre if weeds are less than 6 inches tall, 32 fluid ounces per acre if weeds are 6 to 12 inches tall and 44 fluid ounces per acre if weeds are greater than 12 inches tall. These rates will provide control of weeds listed in the "ANNUAL WEEDS RATE TABLE". Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

## Annual Weeds — Tank Mixtures with 2,4-D, Dicamba or Tordon\* 22K

8 to 11 fluid ounces of this product plus 0.25 pound of dicamba or 0.5 pound of 2,4-D or 1 to 2 fluid ounces of Tordon 22K per acre will control the following weeds with the maximum height or length indicated: 6 inches—Prickly lettuce, Marestail/Horseweed, Morning glory, Kochia (dicamba only) Wild buckwheat (Tordon 22K only); 12 inches—Cocklebur, Lambsquarters, Pigweed, Russian thistle (2,4-D only).

11 fluid ounces of this product plus 0.5 pound of 2,4-D per acre will control the following weeds when they are a maximum height or length of 6 inches: Common ragweed, Giant ragweed, Pennsylvania smartweed, and Velvetleaf. Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Ensure that the specific product is registered for application at the desired site. Some crop injury may occur if dicamba or Tordon 22K is applied within 45 days of planting.

DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.

## Annual Weeds — Hand-Held or High-Volume Equipment

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE", apply a 0.4-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 0.7-percent solution.

For best results, use a 1.5-percent solution on harder-to-control perennials, such as Bermudagrass, Dock, Field bindweed, Hemp dogbane, Milkweed and Canada thistle.

When using application methods that result in less than complete coverage, use a 4-percent solution for annual and perennial weeds and a 4- to 7-percent solution for woody brush and trees.

## Annual Weeds — Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems

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

16 to 20 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 20 fluid ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 0.12 pound of dicamba for control). Ensure that the specific atrazine product is registered for application at the desired site.

## PERENNIAL WEEDS RATE TABLE (Alphabetically by Species)

Apply to actively growing perennial weeds.

NOTE: If weeds have been moved or tilled, do not treat until plants have resumed active growth and have reached the recommended stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage. Best results are obtained when soil moisture is adequate for active weed growth.

PERENNIAL WEEDS RATE TABLE					
WEED SPECIES	RATE (qts. per acre)	WATER VOLUME (gals. per acre)	HAND-HELD % SOLUTION		
Alfalfa	1 to 1.5	3 to 10	1.5%		
USE INSTRUCTIONS: Make applications after the last hay cutting in the Fall.  Allow Alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment.  Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.					
Alligatorweed	3	3 to 20	1%		
USE INSTRUCTIONS: For publications vibrations vibration			he plants are in		
Anise (fennel)	•	-	1 to 1.5%		
USE INSTRUCTIONS: Apply	as a spray-to-we	et treatment.			
Bahiagrass 2	2 to 3.3	3 to 20	1.5%		
			(Continued)		

#### (Continued)

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PERENNIAL WEEDS RATE TABLE					
WEED SPECIES	RATE (qts. per acre)	WATER VOLUME (gals. per acre)	HAND-HELD % SOLUTION		
Bentgrass	1	10 to 20	1.5%		

USE INSTRUCTIONS: For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a Fall application. Bentgrass should have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results.

Bermudagrass 2 to 3.3 3 to 20 1.5%

USE INSTRUCTIONS: For control, apply 3.3 quarts of this product per acre. For partial control, apply 64 fluid ounces per acre. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to achieve control.

Bermudagrass, water 0.7 to 1 5 to 10 1.5% (knotgrass)

USE INSTRUCTIONS: Apply 32 fluid ounces of this product in 5 to 10 gallons of water per acre. Apply when water Bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field. Fall applications only: Apply 22 fluid ounces of this product in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water Bermudagrass that is 12 to 18 inches in length. This product is not registered in California for use on Water Bermudagrass.

Bindweed, field 0.4 to 3.3 3 to 20 1.5%

USE INSTRUCTIONS: Do not treat field Bindweed under drought stress as good soil moisture is necessary for active growth.

For control, apply 2.5 to 3.3 quarts of this product per acre west of the Mississippi River and 2 to 2.5 quarts east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late Summer or Fall. Fall treatments must be applied before a killing frost. Also for control, apply 44 fluid ounces of this product plus 0.5 pound of dicamba in 10 to 20 gallons of water per acre. Do not apply by air. For suppression on irrigated agricultural land, apply 22 to 44 fluid ounces of this product plus 1 pound of 2.4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in Fall fallow ground when the Bindweed is actively growing and the majority of nunners are 12 inches or more in length. The use of at least one irrigation will promote active Bindweed growth.

For suppression, apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tiliage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. In California only, apply 22 fluid ounces to 3.3 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on imgated land where annual tiliage is performed, apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre. Apply to Bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky 0.7 to 1.5 3 to 40 1.5%

USE INSTRUCTIONS: Apply 44 fluid ounces of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

Blueweed, Texas 2 to 3.3 3 to 40 1.5%

USE INSTRUCTIONS: Apply 2.5 to 3.3 quarts of this product per acre west of

the Mississippi River and 2 to 2.5 quarts per acre east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late Summer or Fall. Fall treatments must be applied before a killing frost.

Brackenfern 2 to 3 3 to 40 1%
USE INSTRUCTIONS: Apply to fully expanded fronds that are at least 18

inches long.

Bromegrass, smooth 0.7 to 1.5 3 to 40 1.5%

USE INSTRUCTIONS: Apply 44 fluid ounces of this product in 10 to 40

gallons of water per acre when most plants have reached booth-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 22 to 32 fluid ounces of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

(Continued)

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PERENI	NIAL WEEDS	RATE TABLE	
WEED SPECIES	RATE (qts. per acre)	WATER VOLUME (gals. per acre)	HAND-HELD
Bursage, woolly-leaf	-	3 to 20	1.5%
USE INSTRUCTIONS: For of 0.5 pound of dicamba per a this product plus 0.5 pound producing new active growth	cre. For partial co of dicamba per a	ontrol, apply 22 flu cre. Apply when p	id ounces of plants are
2 weeks and when plants ar	· · · · · · · · · · · · · · · · · · ·	<del>,                                    </del>	<u> </u>
Canarygrass, reed 2	1.5 to 2	3 to 40	1.5%
Cattail 2	2 to 3.3	3 to 40	1.5%
Clover, red, white 1 USE INSTRUCTIONS: Also product plus 0.5 to 1 pound	2 to 3.3 for control, apply of 2.4-D in 3 to 1	3 to 20 11 to 22 fluid oun 0 gallons of water	1.5% ces of this
Cogongrass	2 to 3.3	10 to 40	1.5%
USE INSTRUCTIONS: Apply Summer or Fall. Due to uner vegetation preventing good necessary to achieve contro	ven stages of gro spray coverage, i	wth and the dense	nature of
Dallisgrass <sup>2</sup>	2 to 3.3	3 to 20	1.5%
Dandelion <sup>1</sup>	2 to 3.3	3 to 40	1.5%
USE INSTRUCTIONS: Also plus 0.5 pound of 2,4-D in 3	to 10 gallons of		this product
Dock, curly 1	2 to 3.3	3 to 40	1.5%
USE INSTRUCTIONS: Also product plus 0.5 to 1.0 poun	d of 2,4-D in 3 to	10 gallons of wat	er per acre.
Dogbane, hemp USE INSTRUCTIONS: Apply	3	3 to 40	1%
For suppression, apply 11 fluin 3 to 10 gallons of water per	er acre for ground		
		y applications unti	mumixam l
emergence of Dogbane has Fescue (except tall) <sup>2</sup> Fescue, tall	occurred. 2 to 3.3 0.7 to 2	3 to 20 3 to 40	1.5%
emergence of Dogbane has Fescue (except tail) <sup>2</sup> Fescue, tail  USE INSTRUCTIONS: Apply most plants have reached be Fall applications only. Apply of water per acre. Apply to fee frow growth. A sequential product will improve long-tern	occurred.  2 to 3.3  0.7 to 2  64 fluid ounces oot-to-early seedth 22 fluid ounces oscue in the Fall wapplication of 11 an control and cor	3 to 20 3 to 40 of this product persead stage of devote in 3 when plants have of fluid ounces per a	1.5% 1.5% r acre when elopment. I to 10 gallons to 12 inches cre of this
emergence of Dogbane has Fescue (except tall) <sup>2</sup> Fescue, tall  USE INSTRUCTIONS: Apply most plants have reached both all applications only. Apply of water per acre. Apply to feel from growth. A sequential approduct will improve long-term all treatments or the following terms.	2 to 3.3  0.7 to 2  64 fluid ounces of the carly seed the counces of the counces of the council ounces of the council ounces of the council ounce ounce of the council ounce o	3 to 20 3 to 40 of this product persead stage of dew of this product in 3 when plants have of fluid ounces per a itrol seedlings gen	1.5% 1.5% reacre when elopment. It to 10 gallons to 12 inches cre of this minating after
emergence of Dogbane has Fescue (except tail) <sup>2</sup> Fescue, tail  USE INSTRUCTIONS: Apply most plants have reached be Fall applications only. Apply of water per acre. Apply to fee frow growth. A sequential product will improve long-tern	2 to 3.3  0.7 to 2  64 fluid ounces on the Fall of application of 11 or control and corror of Spring.  1.5 to 2  when most plant thorough coverage of Florida, use	3 to 20 3 to 40 of this product per lead stage of devel of this product in 3 when plants have of fluid ounces per a stroi seedlings ger 3 to 40 s have reached a see when using har 44 fluid ounces for	1.5%  1.5%  acre when elopment. It to 10 gallons is to 12 inches cre of this minating after  1% It least the 7-ind-held or control. In the
emergence of Dogbane has Fescue (except tall) ? Fescue, tall  USE INSTRUCTIONS: Apply most plants have reached be fall applications only: Apply of water per acre. Apply to fe for ew growth. A sequential approduct will improve long-ten fall treatments or the following Guineagrass  USE INSTRUCTIONS: Apply eat stage of growth. Ensure equipment. In Texas and ridg flatwoods region of Florida.	occurred.  2 to 3.3  0.7 to 2  64 fluid ounces in ot-to-early seedth 22 fluid ounces of scue in the Fall wapplication of 11 in control and corning Spring.  1.5 to 2  when most plant thorough coverage of Florida, use 64 fluid ounces is 2 to 3.3	3 to 20 3 to 40 of this product per lead stage of devel of this product in 3 when plants have of fluid ounces per a stroi seedlings ger 3 to 40 s have reached a see when using har 44 fluid ounces for	1.5% 1.5% reacre when elopment. Is to 10 gallons to 12 inches cre of this minating after 1% It least the 7-id-held in control. In the rol.
emergence of Dogbane has Fescue (except tall) <sup>2</sup> Fescue, tall  USE INSTRUCTIONS: Apply most plants have reached be fall applications only: Apply of water per acre. Apply to fe for mey growth. A sequential a product will improve long-ten fall treatments or the following Guineagrass  USE INSTRUCTIONS: Apply the following the following of growth. Ensure equipment. In Texas and ridge latwoods region of Florida, the forseradish	occurred.  2 to 3.3  0.7 to 2  64 fluid ounces out-to-early seedth 22 fluid ounces ousce in the Fall of application of 11 on control and corning Spring.  1.5 to 2  when most plant thorough coverage of Florida, use 64 fluid ounces is 2 to 3.3  3	3 to 20 3 to 40 of this product persead stage of devolet in 3 when plants have of fluid ounces per a strol seedlings ger 3 to 40 s have reached a see when using har 44 fluid ounces to required for control 3 to 20 3 to 40	1.5% 1.5% 1.5% 1.5% 1.5% 1.5% 1.5% 1.5%
emergence of Dogbane has Fescue (except tail) <sup>2</sup> Fescue, tail  JSE INSTRUCTIONS: Apply most plants have reached be fall applications only. Apply of water per acre. Apply to feel for ew growth. A sequential a product will improve long-tent fall treatments or the following Guineagrass  JSE INSTRUCTIONS: Apply eat stage of growth. Ensure equipment. In Texas and ridg latwoods region of Florida, for the following fall the form of the following fall the fall t	occurred.  2 to 3.3  0.7 to 2  64 fluid ounces out-to-early seedr 22 fluid ounces ousce in the Fall varieties of 11 on control and corng Spring.  1.5 to 2  when most plant thorough coverage of Florida, use 34 fluid ounces is 2 to 3.3  3  when most plant	3 to 20 3 to 40 of this product persead stage of devolet in 3 when plants have of fluid ounces per a strol seedlings gentrol seedlings gen	1.5%  1.5%  1.5%  1.5%  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50  1.50
emergence of Dogbane has Fescue (except tail) <sup>2</sup> Fescue, tail  USE INSTRUCTIONS: Apply most plants have reached be fall applications only. Apply of water per acre. Apply to feel for most plants have reached be fall applications only. Apply of the fall treatments or the following Guineagrass  USE INSTRUCTIONS: Apply the fall treatments or the following fall treatments or the following Guineagrass  USE INSTRUCTIONS: Apply the fall treatments or following fall treatments or fol	2 to 3.3  0.7 to 2  64 fluid ounces out-to-early seedrescue in the Fall of application of 11 in control and corng Spring.  1.5 to 2  when most plant thorough coverage of Florida, use 4 fluid ounces is 2 to 3.3  when most plant est results, apply	3 to 20 3 to 40 of this product per lead stage of device of this product in 3 when plants have of fluid ounces per a litrol seedlings ger 3 to 40 s have reached at the when using har 44 fluid ounces to required for cont 3 to 20 3 to 40 s have reached the in late Summer of the seedlings ger  3 to 20 3 to 40 s have reached the in late Summer of the seedlings ger  3 to 20 3 to 40 s have reached the in late Summer of the seedlings ger  3 to 40	1.5%  1.5%  1.5%  r acre when elopment. It to 10 gallons 6 to 12 inches cre of this minating after  1% It least the 7-rd-held in control. In the rol.  1.5% e late bud to r Fall.  1.5 to 2%
emergence of Dogbane has Fescue (except tail) 2 Fescue, tail  USE INSTRUCTIONS: Apply most plants have reached be fall applications only. Apply of water per acre. Apply to fe for new growth. A sequential a product will improve long-ten fall treatments or the followin Guineagrass  USE INSTRUCTIONS: Apply earl stage of growth. Ensure equipment. In Texas and ridg latwoods region of Florida, 6 Horsenettle 1 Horsenatibe 1 USE INSTRUCTIONS: Apply lower stage of growth. For b ceplant 1  USE INSTRUCTIONS: Thoro	occurred.  2 to 3.3  0.7 to 2  64 fluid ounces on the Fall of application of 11 or control and corn of Spring.  1.5 to 2  when most plant thorough coverage of Florida, use 64 fluid ounces is 2 to 3.3  3 when most plant est results, apply ough coverage is 1	3 to 20  3 to 40 of this product per lead stage of device of this product in 3 when plants have of fluid ounces per a stroi seedlings gen  3 to 40 s have reached at the when using har 44 fluid ounces to required for contract 3 to 20 3 to 40 s have reached the in late Summer ouncessary for bes	1.5%  1.5%  1.5%  1.5%  1.5 acre when elopment. It to 10 gallons 5 to 12 inches cre of this minating after  1%  It least the 7- id-held or control. In the rol.  1.5%  e late bud to r Fall.  1.5 to 2% It control.
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	VIAL WEEDS	RATE TABLE	
WEED SPECIES	RATE (qts. per acre)	WATER VOLUME (gals. per acre)	HAND-HELD
Kikuyugrass	1.5 to 2	3 to 40	1.5%
USE INSTRUCTIONS: Spra	y when most Kiku	yugrass is at leas	st 8 inches in
height (3- or 4-leaf stage of before tillage.	growth). Allow 3 (	or more days after	r application
Knapweed	3	3 to 40	1.5%
USE INSTRUCTIONS: Appliflower stage of growth, For I			
Lantana	-	-	1%
USE INSTRUCTIONS: Appl higher application rate for p			
Lespedeza ¹	2 to 3.3	3 to 20	1.5%
Milkweed, common	2	3 to 40	1.5%
USE INSTRUCTIONS: Appliflower stage of growth.	y when most plan	ts have reached t	ne late bud to
Muhly, wirestem	0.7 to 1.5	3 to 40	1.5%
USE INSTRUCTIONS: Use	22 fluid ounces o	this product in 3	to 10 gallons o
the Wirestem muhly is 8 inct and Fall applications or in th 3 or more days after applica Mullein, common 1	e Fall or Spring pation before tillage 2 to 3.3	orior to Spring app b. 3 to 20	lications. Allow
Napiergrass <sup>2</sup>	2 to 3.3	3 to 20	1.5%
Nightshade, silverleaf	1.5	3 to 10	1.5%
USE INSTRUCTIONS: Appli of the plants have berries. F frost.			
Nutsedge; purple or yellow	0.4 to 2	3 to 40	1 to 1.5%
a 1- to 1.5-percent solution f attached to treated plants. To can be found at rhizome tips controlled and may germinat required for long-term contro	or control of Nuts reat when plants a . Nutlets that haw a following treatm I of ungerminated	edge plants and it are in flower or what not germinated thent. Repeat treat I tubers.	mmature nutlets nen new nutlets will not be ments will be
a 1- to 1.5-percent solution if attached to treated plants. To can be found at rhizome tips controlled and may germinal required for long-term control Sequential applications: 22 tof water per acre will also prof the plants are in the 3- to application, as necessary, watage. Subsequent application for partial control of existing	or control of Nuts reat when plants; . Nutlets that haw e following treatm of of ungerminated to 44 fluid ounces rovide control. Ma 5-leaf stage (less hen newly emergi ons will be neces plants, apply 11	edge plants and it are in flower or whe ent. Repeat treat it tubers. of this product in ike applications w than 6 inches tall ing plants reach the sary for long-term to 44 fluid ounces	mmature nutlets will not be ments will be 3 to 10 gallons then a majority ). Repeat this control.
USE INSTRUCTIONS: Apply a 1-to 1.5-percent solution for all to 1.5-percent solution for all to 1.5-percent solution for all to 1.5-percent solutions are found at mizome tips controlled and may germinal required for long-term control Sequential applications: 22 for water per acre will also prof the plants are in the 3-to application, as necessary, we stage. Subsequent application for partial control of existing in 3 to 40 gallons of water permost are less than 6 inches	or control of Nutsineat when plants in Nutsets that haw be following treatmol of ungerinated to 44 fluid ounces to 15 fluid oun	edge plants and it are in flower or what a not germinated to ent. Repeat treat I tubers. I of this product in the applications with than 6 inches tall insary for long-term to 44 fluid ounces an plants have 3 to ments will be requi	mmature nutlets will not be ments will be 3 to 10 gallons then a majority. Repeat this e 3- to 5-leaf control. It is feaves and
a 1- to 1.5-percent solution if attached to treated plants. Tican be found at rhizome tips controlled and may germinat required for long-term controlled applications: 22 to water per acre will also profithe plants are in the 3- to application, as necessary, with stage. Subsequent application for partial control of existing in 3 to 40 gallons of water prost are less than 6 inches subsequent emerging plants.	or control of Nutsineat when plants in Nutlets that haw the following treatmol of ungerminated to 44 fluid ounces to vide control. Masser stage (less hen newly emergions will be necessiplants, apply 11 er acre. Treat who tall. Repeat treatmol regrowth of every service or regrowth of every service of the s	edge plants and it are in flower or whence the ment. Repeat treat it tubers. The product in the applications with the applications with the applications with an 6 inches tall ing plants reach it sary for long-term to 44 fluid ounces on plants have 3 to ments will be requisiting plants.	mmature nutlets will not be ments will be 3 to 10 gallons then a majority). Repeat this se 3- to 5-leaf control. of this product to 5 leaves and ired to control
a 1- to 1.5-percent solution if attached to treated plants. Tican be found at rhizome tips controlled and may germinat required for long-term controlled sequential applications: 22 to water per acre will also profithe plants are in the 3- to application, as necessary, with stage. Subsequent application for partial control of existing in 3 to 40 gallons of water permost are less than 6 inches subsequent emerging plants.	or control of Nuts reat when plants is. Nutlets that haw the following treatm of of ungerminated to 44 fluid ounces to vide control. Mas 5-leaf stage (less hen newly emergions will be neces plants, apply 11 er acre. Treat who tall. Repeat treatmor regrowth of every control of the control of	edge plants and in are in flower or whe e not germinated in ent. Repeat treat it tubers. If of this product in ike applications with the applications with the applications with an 6 inches tall ing plants reach it sary for long-term to 44 fluid ounces on plants have 3 to ments will be requiditing plants.	mmature nutlets will not be ments will be 3 to 10 gallons then a majority. Repeat this control. of this product of seaves and irred to control.
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a 1- to 1.5-percent solution in attached to treated plants. To can be found at rhizome tips controlled and may germinal required for long-term controlled and may germinal required for long-term control Sequential applications: 22 to water per acre will also prof the plants are in the 3- to application, as necessary, we stage. Subsequent application for partial control of existing in 3 to 40 gallons of water per most are less than 6 inches subsequent emerging plants. Orchardgrass  USE INSTRUCTIONS: Apply gallons of water per acre who seedhead stage of developmenovation, apply 22 to 32 fluwater per acre. Apply to actil 2 Inches in height. Orchardgrass sods going to product in 3 to 10 gallons of minimum of 12 inches tall for applications. Allow at least 3 sequential application of atres.	or control of Nuts reat when plants is. Nutlets that haw the following treatm of of ungerminated to 44 fluid ounces rovide control. Mas 5-leaf stage (less hen newly emergions will be neces a plants, apply 11 er acre. Treat who tall. Repeat treatmor regrowth of en 0.7 to 1.5 44 fluid ounces henent. For partial of clid ounces of this vely growing plar no-till Com: Appl water per acre. A Spring application days following application of the second of the control of the control of the clid ounces of this vely growing plar the clid ounces of this vely growing plar solutions of the clid ounces of this vely growing plar outlets of the clid ounces of this vely growing plar outlets of the clid ounces of this vely growing plar outlets of the clid ounces of this vely growing application of the clid ounces of this velocity of the clid ounces of the clid ounces of this velocity of the clid ounces oun	edge plants and in are in flower or whe ent. Repeat treat the treat in tubers. The product in the applications with the applications with the applications with the applications with the applications are the sary for long-term to 44 fluid ounces an plants have 3 to ments will be requisiting plants.  3 to 40 of this product in a verseched bootontrol in pasture or product in 3 to 10 the swhen most have y 22 to 32 fluid outpely to Orchardgons and 6 inches poplication before	mmature nutlets sen new nutlets will not be ments will be 3 to 10 gallons then a majority. Repeat this e 3- to 5-leaf control. of this product o 5 leaves and irred to control.  1.5%  10 to 40 to 40 to early or hay crop o gallons of e reached 4 to unces of this rass that is a tall for Fall planting. A mesufts.
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(Continued)

PERENNIAL WEEDS RATE TABLE					
WEED SPECIES	RATE (qts. per acre)	WATER VOLUME (gals. per acre)	HAND-HELD % SOLUTION		
Pokeweed, common	1	3 to 40	1.5%		
USE INSTRUCTIONS: App	ly to actively grow	ing plants up to 2	4 inches tall.		
Quackgrass	0.7 to 2	3 to 40	1.5%		

USE INSTRUCTIONS: In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 44 fluid ounces of this product. Do not tank-mix with residual herbicides when using the 22-fluid-ounce rate. Spray when Quackgrass is 6 to 8 inches in height. Do not till between harvest and Fall applications or in Fall or Spring prior to Spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results. In pastures, sods or non-crop areas where deep tillage does not follow application: Apply 44 to 64 fluid ounces of this product in 10 to 40 gallons of water per acre when the Quackgrass is greater than 8 inches tall.

Heavine	0.5 (0 1.5	51010	1.5%
USE INSTRUCTIONS: For si	uppression, apply	y 16 fluid ounces	of this product
per acre at each of two appli	ications 7 to 14 c	days apart or a sir	ngle application

of 44 fluid ounces per acre. Apply recommended rates in 5 to 10 gallons of water per acre. Apply in late September or early October to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage

operation, make applications at least 1 week before a killing frost.					
Reed, giant	-	-	1.5%		
LICE BICTOLICTIONS, Deat	and the same shade	فممأ مسم سيطيد أسمه	ia da		

in late Summer to Fall.

Ryegrass, perennial	0.7 to 2	3 to 40	1%

USE INSTRUCTIONS: In annual cropping systems apply 22 to 44 fluid ounces of this product per acre. Apply 22 fluid ounces of this product in 3 to 10 gallons of water per acre. Use 44 fluid ounces of this product when applying to 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage (no-till) is not practiced, apply 44 to 64 fluid ounces of this product in 10 to 40 gallons of water per acre.

For best results, apply when most plants have reached the boot-to-head stage of growth or in the Fall prior to frost. Do not tank-mix with residual herbicides when using 22 fluid ounces of this product per acre.

Smartweed, swamp 1	2 to 3.3	3 to 40	1.5%

USE INSTRUCTIONS: Also for control, apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late Summer or Fall.

Sowthistle, perennial	1.5 to 2	3 to 40	1.5%

USE INSTRUCTIONS: Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late Summer or Fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage

Spurge, leafy	 3 to 10	1 to 1.5%

USE INSTRUCTIONS: For suppression, apply 11 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late Summer or Fall. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.

Starthistle, yellow	1.5	10 to 40	1.5%
USE INSTRUCTIONS: Best I	results are obtain	ned when applicat	ions are made

during the rosette, bolting and early flower stages.

Sweet potato,	wild	-	-	1.5%

USE INSTRUCTIONS: For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

Thistle, artichoke	-	_	1.5%

USE INSTRUCTIONS: For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

Thistle, Canada	1.5 to 2	3 to 40	1.5%

USE INSTRUCTIONS: Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late Summer or Fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression in the Spring, apply 22 fluid ounces of this product, or 11 fluid ounces of this product plus 0.5 pound of 2.4-D, in 3 to 10 gallons of water per acre. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

(Continued)

WEED SPECIES	RATE (qts. per acre)	WATER VOLUME (gals. per acre)	HAND-HELD % SOLUTION
Timothy <sup>2</sup>	1.5 to 2	3 to 40	1.5%
Torpedograss	2.5 to 3.3	3 to 40	1.5%

(Continued)

Trumpetcreeper

USE INSTRUCTIONS: For partial control, apply in late September or October, to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Vaseygrass <sup>2</sup>	2 to 3.3	3 to 20	1.5%
Velvetgrass <sup>2</sup>	2 to 3.3	3 to 20	1%
Wheatgrass, western 2	1.5 to 2	3 to 40	1.5%

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

## **WOODY BRUSH AND TREES RATE TABLE** (Alphabetically by Species)

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

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

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

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

WOODY BRUSH AND TREES RATE TABLE			
WEED SPECIES	RATE (qts. per acre)	HAND-HELD % SOLUTION	
Aider	2 to 3	1%	
Ash '	1.5 to 3.3	1 to 1.5%	
Aspen, quaking	1.5 to 2	1%	
Bearmat (Bearclover) 1	1.5 to 3.3	1 to 1.5%	
Beech '	1.5 to 3.3	1 to 1.5%	
Birch	1.5 to 2	1%	
Blackberry	2 to 3	1%	

USE INSTRUCTIONS: Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late Summer or Fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late Fall, Blackberry can be controlled by applying a 0.7-percent solution of this product. For control of Blackberries after leaf drop and until killing frost or as long as stems are green, apply 2 to 2.5 quarts of this product in 10 to 40 gallons of water per acre.

Blackgum	1.5 to 3.3	1 to 1.5%
Bracken	1.5 to 3.3	1 to 1.5%
Broom; French, Scotch	-	1 to 1.5%
Buckwheat, California 12	-	1 to 1.5%
Cascara 1	1.5 to 3.3	1 to 1.5%
Catsclaw 1	-	1%
Ceanothus 1	1.5 to 3.3	1 to 1.5%
Chamise <sup>2</sup>	-	1%
Cherry, bitter, black, pin	1.5 to 2	1%
Coyote brush	-	1 to 1.5%
LICE MICTRICTIONS: Applicate	an at least 50 agrees at	the manufacture are

USE INSTRUCTIONS: Apply when at least 50 percent of the new leaves are fully developed

(Continued)

to 3.3  to 3.3  to 3.3  5 to 2  to 3.3	HAND-HELD % SOLUTION  1 to 1.5%  1%  1 to 1.5%  1.5%  3 apply when Avoid application  1 to 1.5%  1 to 1.5%  1 to 1.5%  1%  1 to 1.5%  1%  1 to 1.5%  1%  1 to 1.5%  2 to 1.5%  2 to 1.5%  2 to 1.5%  3 to 1.5%  4 to 1.5%  5 to 1.5%  6 to achieve  1 to 1.5%
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#### (Continued)

WOODY BRUSH AND TREES RATE TABLE				
WEED SPECIES	RATE (qts. per acre)	HAND-HELD % SOLUTION		
Tallowtree, Chinese 2	-	1%		
USE INSTRUCTIONS: Thoro results.	ugh coverage of foliage is n	ecessary for best		
Tan oak resprouts '		1.5%		
USE INSTRUCTIONS: Apply Best results are obtained with		an 3 to 6 feet tall.		
		1%		
Best results are obtained with	h Fall applications.			
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Best results are obtained with Thimbleberry Tobacco, tree ' Trumpetcreeper	1.5 to 2	1% 1 to 1.5% 1%		
Best results are obtained with Thimbleberry Tobacco, tree ' Trumpetcreeper Vine maple '	1.5 to 2  1.5 to 2  1.5 to 2  1.5 to 3.3	1% 1 to 1.5% 1% 1 to 1.5%		

## STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep container closed to prevent spills and contamination. Do not transport this container if it is damaged or leaking. If the container is damaged, leaking or obsolete, or to obtain information about recycling portable refiliable containers, contact Drexel Chemical Company at (901) 774-4370.

Users: When the container is empty, replace the cap and seal all openings that have been made during usage, and return the container to the point of purchase, or to an alternate location designated by the manufacturer at the time of purchase of this product. If not returned, triple rinse or pressure rinse the empty container and offer it for recycling if available.

Refillers: Do not reuse mini-bulk containers except for refill in accordance with a valid Drexel Chemical Company Repackaging or Toll Repackaging Agreement. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. For Refillable Stationary Bulk Containers: This container must only be refilled with pesticide product. Do not reuse this container for any other purpose.

Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices.

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 labeled safeguards until container is cleaned, reconditioned, or destroyed. **CONTAINER DISPOSAL:** 

Plastic One-Way Containers and Bottles: Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state an local authorities, by burning. If burned, stay out of smoke.

One-Way Drums: Do not reuse container. Return container per the Drexel Chemical Company container return program. If not returned, triple rinse container, then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state an local authorities, by burning. If burned, stay out of smoke.

Metal Containers (non-aerosol): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Final disposal must be in compliance with state and local regulations. If not refilled, returned, or recycled, triple rinse or pressure rinse, 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.



## WARRANTY-CONDITIONS OF SALE

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

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

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

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company. For over-the-top uses on Roundup Ready crop varieties crop safety and weed control performance are not warranted by Drexel Chemical Company when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORS OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

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