

GLYPHOSATE GROUP 9 HERBICIDE

GLYPEX 5 extra

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

Read the entire label before using this product. Use only according to label instructions.

1.0 INGREDIENTS AND FRONT PANEL STATEMENTS

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt..... 53.8%

OTHER INGREDIENTS: 46.2%

TOTAL: 100.0%

*Contains 648 grams per liter or 5.4 pounds per US gallon of the active ingredient Glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per liter or 4.0 pounds per US gallon of the acid, glyphosate.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See inside label booklet for additional Precautionary Statements, and Directions for Use including Storage and Disposal instructions.

2.0 IMPORTANT PHONE NUMBERS

IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL (800) 424-9300

EPA Reg. No.: 93033-
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Manufactured For:
APEX Ag Chem, Inc.
PO Box 802427
Houston, TX 77280

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3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals: Caution. Remove and wash contaminated clothing before reuse.

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

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

Engineering Controls Statements: 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 170.607), the handler PPE requirements may be reduced or modified as specified in the WPS.

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

USER SAFETY RECOMMENDATIONS

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

3.2 Environmental Hazards

ENVIRONMENTAL HAZARDS

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

For products in containers over 5 gallons: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

3.3 Physical or Chemical Hazards

PHYSICAL OR CHEMICAL HAZARDS

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

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

3.4 Directions for Use/WPS

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

AGRICULTURAL USE REQUIREMENTS

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

Do not allow worker entry into treated areas during the restricted entry interval (REI) of four (4) hours or until solution has dried.

Exception: If the product is soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter treated area if there is no contact with anything that has been treated.

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

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the 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 unprotected persons out of treated areas until sprays have dried.

4.0 STORAGE AND DISPOSAL

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Keep container closed to prevent spills and contamination. Store above 50°F (15°C) to keep product from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in warm room 68°F (20°C) for several days to dissolve and roll or shake container or recirculate in mini-bulk containers to mix well before using.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal Facility.

Container Handling: Non-refillable container. Do not reuse or refill this container.

For non-refillable plastic containers (≤5 gallons) small enough to shake:

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

For non-refillable plastic containers (>5 gallons) too large to shake:

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

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. Then offer this container for recycling, if available. If recycling is not available, dispose of this container in accordance with federal, state, and local regulations and procedures, which may include puncturing and disposing in a sanitary landfill, incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

5.0 INFORMATION HOW THIS PRODUCT WORKS)

Product Description: This product is a post-emergent, 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.

This product requires the use of a nonionic surfactant. See the "SURFACTANTS" section of this label for further instructions on the use of surfactants, and see "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 a gradual wilting and yellowing of the plant which advance 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 "WOOD BRUSH AND TREES RATE SECTIONS" for directions for specific weeds.

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

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

Cultural Considerations: Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to regrow to the listed 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 must be uniform and complete. Do not spray weed foliage to the point of runoff.

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

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 producing a tank mixture with a generic active ingredient including diuron, 2,4-D, butacarb, the user is responsible for ensuring that the mixture 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 directed 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 6 quarts of this product per acre per year. For applications in non-agricultural sites or in tree, vine, or shrub crops, the combined total of all treatments must not exceed 8 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.

6.0 MIXING

Spray solutions of this product must be mixed, stored, and applied using only stainless steel, aluminum, fiberglass, plastic, or plastic-lined steel containers. DO NOT MIX, STORE, OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.

Apply these spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes. Do not apply when wind or other conditions favor drift. Hand-held applications must be properly directed to avoid spraying desirable plants.

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

Eliminate any risk of siphoning the contents of the tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by State or local authorities.

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

6.1 Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows:

For hand held or backpack sprayers (less than or equal to 5 gal. capacity): Add the labeled amount of this product to the spray tank. Fill the spray tank with water and ensure thorough mixing. Alternatively, the labeled amount of this product can be mixed with water in a large container. Fill sprayer with the mixed solution.

For larger tank sprayers (greater than 5 gal. capacity): Fill the mixing or spray tank one-half full with water and start agitation. Add the labeled amount of this product using a circular motion while pouring. Continue filling the spray tank with water and ensure thorough mixing.

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 bypass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

6.2 Tank Mixing Procedure

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

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

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

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size of nozzle or the strainers must 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.

Refer to the "TANK MIXING" section of 'INFORMATION' for additional precautions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

6.3 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 Volume	AMOUNT OF PRODUCT					
	0.5%	0.75%	1.0%	1.5%	4.0%	8.0%
1 Gal	0.7 oz	1.0 oz	1.3 oz	2.0 oz	5.0 oz	10.0 oz
25 Gal	1.0 pt	1.5 pt	1.0 qt	1.5 qt	4.0 at	2.0 gal
100 Gal	4.0 qt	3.0 qt	1.0 gal	1.5 gal	4.0 gal	8.0 gal

2 tablespoons = 1 fluid ounce

Above percentages are on a weight-for-weight basis with water as 8.34 pounds per gallon.

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

6.4 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 directed in this label. Lower rates will result in reduced performance.

6.5 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 instructions.

6.6 Surfactants

This product requires the use of a nonionic surfactant. Except when prohibited by this label, mix two or more quarts of a nonionic surfactant per 100 gallons of spray solution. Increasing the rate of surfactant may enhance performance. Examples of when to use the higher surfactant rate include, but are not limited to: high water volumes, hard to control woody brush, trees, and vines, adverse environmental conditions, tough to control weeds, weeds under stress, surfactants with less than 70 percent active ingredient, tank mixes, etc. These surfactants must not be used in excess of 1 quart per acre when making broadcast applications.

Always read and follow the surfactant manufacturer's label instructions for best results. Carefully observe all cautionary statements and other information in the surfactant label. When applied as directed under the conditions described, this product controls annual and perennial weeds listed in the label booklet. Do not reduce rates of this product when adding surfactant. DO NOT add buffering agents or pH adjusting agents to the spray solution when this product is the only pesticide used. When applying this product in ROUNDUP READY crops, limit nonionic surfactant usage to two quarts per 100 gallons of spray solution. Use rates of nonionic surfactant exceeding two quarts per 100 gallons of spray solution can result in crop injury and reduced yield.

6.7 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.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

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

This product may be applied with the following application equipment:

Aerial – 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.

SPRAY DRIFT MANAGEMENT

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

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER OTHER CONDITIONS WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

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.

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

7.1 Aerial Equipment, Spray Drift Management, and Application Restrictions

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

Use the listed rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 1.5 pints per acre. Refer to the individual use area sections of this label for volumes, application rates, and further instructions.

This product plus dicamba and/or 2,4-D 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 crops.

1. The distance of the outermost nozzles on the boom must not exceed $\frac{1}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they must be observed.

Importance of droplet size

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

Controlling droplet size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce large droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than $\frac{1}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height:** Applications must 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 will reduce 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 must 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 must not be made below 2 miles per hour due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set 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 must 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

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

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. Do not contaminate water when cleaning equipment or disposing of equipment wash waters. **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.

FOR AERIAL APPLICATIONS IN CALIFORNIA ONLY

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

1. In fallow and reduced tillage systems prior to the emergence or transplanting of late season crops.
2. In alfalfa and pasture renovation applications.
3. Over-the-top applications in Roundup Ready corn and cotton. Refer to further label instructions for Roundup Ready corn and Roundup Ready cotton for specific application instructions for over-the-top applications in these crops.
4. Preharvest in alfalfa, corn, cotton, wheat, Roundup Ready corn and Roundup Ready cotton. Refer to label instructions for Roundup Ready corn and Roundup Ready cotton for specific preharvest application instructions for each individual crop.

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

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

When tank mixing this product with 2,4-D for aerial applications, only 2,4-D amine formulations may be used. This tank mixture may be used for fallow and reduced tillage systems and alfalfa and pasture renovation applications only.

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

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

DO NOT EXCEED MAXIMUM RATE OF 1.5 POUNDS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR WITH THE FOLLOWING EXCEPTIONS: DO NOT EXCEED A MAXIMUM RATE OF 3 POUNDS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN FALLOW, PASTURES, AND REDUCED TILLAGE SYSTEMS, AND POST-EMERGENCE AND PRIOR TO HARVEST IN ALFALFA, ROUNDUP READY ALFALFA, COTTON, ROUNDUP READY COTTON, SUGARCANE, AND ROUNDUP READY CORN.

FOR AERIAL APPLICATIONS IN FRESNO COUNTY CALIFORNIA ONLY

From February 15th through March 31st Only

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California.

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

Information

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

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

Written Directions

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

AERIAL APPLICATOR TRAINING AND EQUIPMENT

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

Applications at Night – Do not apply this product by air earlier than 30 minutes prior to sunrise and no later than 90 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

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

Note: For aerial application from April 1 through February 14.

AERIAL APPLICATIONS IN ARKANSAS ONLY

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

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

ARKANSAS, LOUISIANA, MISSISSIPPI, MISSOURI, AND TENNESSEE ONLY

This product controls annual and perennial weeds listed on this label prior to planting or emergence of corn, cotton, rice, sorghum and soybeans; prior to the harvest of cotton and soybeans; and following the harvest of any crop in the fall for aerial applications in these locations.

Aerial applications of this product may be made in no-till systems and conventional, reduced and zero tillage systems. For applications via aerial equipment, use the specified rates of this product in 3 to 10 gallons of water per acre. Do not exceed a rate of 72 fluid ounces (4.5 pts.) per acre.

The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser velocities, will allow spray drift to occur.

7.2 Ground Broadcast Equipment

For broadcast ground applications, unless otherwise specified use this product at the rate of 1.5 to 3 pints per acre for annual weeds, 3 to 7.5 pints per acre for perennial weeds and 3 to 7.5 pints per acre for woody brush and trees. Use the listed 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 must be increased within the listed 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.

7.3 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 must be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only. For listed rates and timing, refer to the "ANNUAL WEEDS—HAND-HELD OR HIGH VOLUME EQUIPMENT" section of this product label.

7.4 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 dropping 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 directed in this product's labeling.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applications made above desirable vegetation must 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 setting on desirable vegetation may result in discoloration, stunting or destruction.

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

This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods of 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 sides 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 necessary. Spray volume must be 20-30 gallons per acre.

These procedures will reduce the potential for crop injury:

- The spray hoods must be operated on the ground and moving 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 must be 30 inches.
- Maximum tractor speed: 5 miles per hour to avoid bouncing of the spray hoods.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles that provide uniform coverage within the treated area.

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

Wiper Applicators

When applied under the conditions described in the following paragraphs, this product CONTROLS many weeds, including volunteer corn, Texas panicum, common rye, shattercane, sicklepod, spanishneedles and bristly starbur; and SUPPRESSES many weeds including Florida beggarweed, bermudagrass, hemp dogbane, dogfennel, guineagrass, johnsongrass, milkweed, ivyleaf nightshade, redroot pigweed, giant ragweed, smutgrass, sunflower, Canada thistle, musk thistle, vaseygrass, 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 not use wiper equipment when weeds are wet.

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

Use a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution with all wiper applications.

For Rope or Sponge Wick Applicators – Solutions ranging from 33 to 75 percent by of this product in water can be used.

For Panel Applicators and Pressure-Feed Systems – Solutions ranging from 33 to 100 percent of this product in water can be used.

Note: In preparing these concentrated solutions always allow adequate time for product to dissolve. Use of warm water will shorten dissolution time.

7.5 Injection Systems

This product may be used in aerial or ground injection spray systems. This product may be injected into the spray stream after dilution and thorough mixing with water. Do not mix this product with the concentration of other products when using injection systems.

7.6 CDA Equipment

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount listed 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 (1.5 pints per acre). For the control of perennial weeds, apply a 20 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 (3 to 6 pints 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 of any other green tissue of desirable vegetation, as damage or destruction may result.

8.0 ANNUAL AND PERENNIAL CROPS (Alphabetical)

NOTE: THIS SECTION GIVES 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.

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 according to the rates listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE SECTIONS" in this label. Repeat applications may be made up to a maximum of 6 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 on 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 the maximum use rate.

PRECAUTIONS: 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. Take care to avoid drift or spray outside the target area.

RESTRICTIONS:

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 any non-labeled crop.

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.

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

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

8.1 Cereal and Grain Crops

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

RESTRICTIONS: Do not treat rice fields or leaves when field contains water.

TYPES OF APPLICATIONS: Those listed in Section 8.0 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.

RESTRICTIONS: Applications must be made prior to emergence of the crop.

Red Rice Control Prior to Planting Rice

USE INSTRUCTIONS: Apply 3 pints of this product in 5 to 10 gallons of water per acre. Flush field 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 and no more than 4 inches tall. Red rice plants with less than 2 true leaves may be only partially controlled.

PRECAUTIONS: Avoid spraying during low humidity conditions, as red rice control may result.

RESTRICTIONS: Do not re-flood treated fields for 8 days following application.

Spot Treatment (except Rice)

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

PRECAUTIONS: Take care to avoid drift or spray outside target area.

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.

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.

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 feed barley. For wheat, apply after the hard-dough stage of grain (30 percent or less grain moisture). For feed barley, apply after the hard-dough stage and when the grain contains 20 percent moisture or less. Stubble may be grazed immediately after harvest. This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

RESTRICTIONS: Do not apply more than 1.5 pints of this product per acre. Allow 7 days between application and harvest or grazing. Do not apply preharvest to 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.

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.

8.2 Corn

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

TYPES OF APPLICATIONS: Those listed in Section 8.0 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.

RESTRICTIONS: Applications must be made prior to emergence of the crop.

TANK MIXTURES: Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

2,4-D	Acetochlor plus Atrazine
Carfentrazone-ethyl	Diflufenzopyr-sodium plus Dicamba, sodium salt
Atrazine	S-metolachlor
Metribuzin plus Flufenacet	Linuron
Isoxaflutole	Flufenacet plus Isoxaflutole
Dicamba, diglycolamine salt	Dimethenamid
Atrazine plus S-metolachlor	Atrazine plus Dicamba, potassium salt
Alachlor	Thifensulfuron plus Rimsulfuron
Alachlor plus Atrazine	Pendimethalin
Acetochlor	Flumetsulam
Simazine	

For difficult-to-control annual weeds including fall panicum, barnyardgrass, crabgrass, smartweed and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 1.5 pints per acre in these tank mixtures. For other labeled annual weeds, apply 12 to 18 ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 ounces 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.

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 including barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds. The area covered by this instruction includes 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: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage.

RESTRICTIONS: Corn must be at least 12 inches tall, measured without extending leaves. Do not apply more than 1.5 pints of this product per acre for each application and no more than 4.5 pints per acre per year for hooded sprayer applications.

Spot Treatment

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

PRECAUTIONS: Take care to avoid drift or spray outside of target area.

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.

Preharvest

USE INSTRUCTIONS: 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). For ground applications, apply up to 4.5 pints ounces of this product per acre. For aerial applications, apply up to 3 pints of this product per acre.

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

Post-Harvest

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

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

8.3 Cotton

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Selective Equipment, Spot Treatment, Preharvest.

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 can be tank-mixed with products containing the following active ingredients 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.

Prometryn	Diuron
Dicamba, diglycolamine salt	S-metolachlor
Clomazone	Pendimethalin
Fluometuron	Pyrithiobac-sodium
Prometryn	Norflurazon
2,4-D	

Refer to individual product labels for rates, restrictions, precautionary statements, and replant intervals.

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

Spot Treatment

USE INSTRUCTIONS: For spot treatments, apply the product prior to boll opening of cotton.

PRECAUTIONS: Take care to avoid drifting spray outside the target area.

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.

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 SECTIONS" of this label. For cotton regrowth inhibition, apply 12 to 48 ounces of this product per acre.

Up to 48 ounces of this product per acre 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 appropriately labeled products containing tribufos, phosphorotrichous acid, tributyl ester, diuron plus thidiazuron or ethephon to provide additional enhancement of cotton leaf drop.

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

8.4 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 label. This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used. Applications up to 3 pints 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.

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", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE SECTIONS" of this label.

TANK MIXTURES: In addition, 9 ounces of this product plus the specified amount of an appropriately labeled oxyfluorfen product per acre will control the following weeds with the maximum height or length indicated: 3 inches – common cheeseweed, groundsel, groundsel; 6 inches – London rocket, shepherd's purse.

12 ounces of this product plus the specified amount of an appropriately labeled oxyfluorfen product per acre will control the following weeds with the maximum height or length indicated: 6 inches – common cheeseweed, groundsel, marestail (*Conyzabacardensis*); 12 inches – chickweed, London rocket, shepherd's purse.

Aid-to-Tillage

USE INSTRUCTIONS: This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 6 ounces of this product in 3 to 10 gallons of water per acre. Make application 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: Tank mixtures with residual herbicides may result in reduced performance.

8.5 Grain Sorghum (Milo)

TYPES OF APPLICATIONS: Those listed in Section 8.1 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: Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

Atrazine
Atrazine plus S-metolachlor
Alachlor
Alachlor plus Atrazine
S-metolachlor

For difficult-to-control annual weeds including fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 24 ounces per acre in these tank mixtures. For other labeled annual weeds, apply 12 to 18 ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 ounces when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased or 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: Take care to avoid drift or spray outside the target area.

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. 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: 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.

RESTRICTIONS: Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers. Do not apply more than 1.5 pints of this product per acre per application and no more than 4.5 pints per acre per year for hooded sprayer application.

Preharvest

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

PRECAUTIONS: 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.

RESTRICTIONS: Do not apply more than 3 pints of this product per acre. Allow a minimum of 7 days between application and harvest of sorghum. Do not apply preharvest to 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 24 ounces of this product per acre for control, or 20 ounces of this product per acre for suppression.

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

8.6 Herb 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, Curry seed, Cherry (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 (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Hops, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mioga fruit, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Over-the-Top Wiper Applications (Peppermint and Spearmint only), Spot Treatment (Peppermint and Spearmint only).

PRECAUTIONS: 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. Take care to ensure that the wash water flushes off the plastic mulch and does not enter 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 spearmint and peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, including back-pack and knapsacks sprayers, pump-up pressure sprayers, hand-guns, hand-wands or any other hand-held or motorized spray equipment used to direct the spray solutions to a limited area. In wiper applications, the applicator must be adjusted so that the wiper contact point is at least 2 inches above the crop. Weeds must be a minimum of 6 inches taller than the crop.

PRECAUTIONS: Take care to avoid drift or spray outside the target area. In wiper applications, contact of the herbicide solution with the crop may result in damage or destruction.

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 must be treated at one time. The crop remaining down in the treated area will be killed.

8.7 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 Section 8.0.

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.

RESTRICTIONS: Do not apply more than 3 pints of this product per acre on canola. Do not apply more than 1.5 pints of this product per acre for sunflowers as a single preplant or preemergent application per year. Do not feed or graze sunflower for the following applications of this product.

8.8 Soybeans

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Preharvest, 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.

RESTRICTIONS: 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.

Carfentrazone-ethyl	Imazamoxazin	Pendimethalin
2, 6-Diisopropylinaphthalene	Cloransulam-methyl	Imazethapyr, ammonium salt
Quizalofop-p-ethyl	Sodium salt of fomesafen	Imazethapyr plus Pendimethalin
Sulfentrazone	Dimethenamid	Sodium salt of fomesafen
Metribuzin plus S-metolachlor	Fenoxaprop-p-ethyl plus Fluazifop-P-butyl	Flumiclorac
Chlorimuron plus Metribuzin	Cloransulam-methyl plus Sulfentrazone	Ammonium salt of imazaquin
Chlorimuron plus Sulfentrazone	Alachlor	
Clomazone	Imazaquin plus Imazethapyr plus Pendimethalin	
Clomazone plus Sulfentrazone	Linuron	
Flufenacet plus Metribuzin	Ammonium salt of Imazaquin plus Pendimethalin	
S-metolachlor	Metribuzin	

This product may be tank-mixed with 2,4-D or 2,4-DB. See the 2,4-D label for intervals between application and planting.

For difficult-to-control annual weeds including fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 24 ounces per acre in these tank mixtures. For other labeled annual weeds, apply 12 to 18 ounces of this product per acre when weeds are less than 6 inches tall, and 24 to 36 ounces when weeds are over 6 inches tall.

PRECAUTIONS: 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 treatment, apply this product prior to initial pod set in soybeans

PRECAUTIONS: Take care to avoid drift or spray outside the target area.

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.

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 must be taken to avoid excessive seed shatter loss due to ground application equipment.

PRECAUTIONS: Preharvest application is not to be used for soybeans grown for seed, as a reduction in germination or vigor may occur.

RESTRICTIONS: Do not apply more than 4.0 quarts per acre of this product for preharvest applications. Do not apply more than 3.0 pints 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 1.5 pints per acre or lower, the grazing restriction is reduced to 14 days after last preharvest application.)

Selective Equipment

USE INSTRUCTIONS: This product may be applied through recirculating sprayers, shielded applicators, hooded sprayers, wiper applicators or sponge bars in soybeans. PRECAUTIONS: 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.

RESTRICTIONS: Allow at least 7 days between application and harvest.

8.9 Sugarcane

TYPES OF APPLICATIONS: Those listed in Section 8.0

Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied in on-ground sugarcane fields prior to the emergence of plant cane.

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

Spot Treatment

USE INSTRUCTIONS: This product may be applied as a spot treatment of sugarcane. For control of volunteer or diseased sugarcane, make a 0.75 percent solution of this product in water and spray-to-wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane must have at least 7 new leaves.

PRECAUTIONS: Avoid spray contact with healthy cane plants since severe damage or destruction may result.

RESTRICTIONS: 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 or removal of last stubble of ratoon cane, apply 6 to 7.5 pints of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage. Ground or aerial application equipment may be used. Applications up to 3 pints 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.

Do not allow treated weeds to come into contact with the crop. Droplets, mist, foam or splatter of the herbicide solution setting on the crop may result in discoloration, stunting or destruction.

Foliar Treatment for Plant Growth Regulation

For foliar application to hasten ripening and extend the period of high sucrose levels in sugarcane.

USE INSTRUCTIONS: When foliar-applied this product is a plant growth regulator used to hasten ripening and increase the level of glucose in sugarcane. It is effective in both low and high-tonnage sugarcane. When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane. As a result of leaf desiccation, improved trash burn can be expected. Within 2 to 3 weeks after application, this product can produce a slight yellowing to pronounced browning and drying of leaves, and a shortening of upper internodes; spindle death may occur. 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.

See the following for rates and time of application for the State in which applications are to be made. NOTE: Use the higher rate within the specified range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

RESTRICTIONS: For use ONLY on sugarcane. Do NOT plant to subsequent crops other than the following for 30 days after application: Corn (All), Soybean, Sorghum (Milo), Cotton, Alfalfa, Beans (All), Forage Grasses, Potatoes (Irish, Sweet), Wheat

FLORIDA – Apply 6 to 14 ounces of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.

HAWAII – Apply 10 to 24 ounces of this product per acre 4 to 10 weeks before harvest.

LOUISIANA – Apply 4 to 14 ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

PUERTO RICO – Apply 6 ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

TEXAS – Apply 6 to 14 ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

PRECAUTIONS: Application of this product can initiate development of shooting tips. This product may not increase the sucrose content of sugarcane under conditions of good natural ripening.

RESTRICTIONS: Do not apply to sugarcane to be harvested for seed purposes. Do not feed or graze treated sugarcane forage following application.

8.10 Vegetable Crops

NOTE: THIS "VEGETABLE CROPS" SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED VEGETABLE CROPS WITHIN SECTION 8.10 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, and Post-Harvest, Directed Applications (Nonbearing Ginseng), Over-the-Top Wipers (Rutabagas Only).

PRECAUTIONS: 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 must 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, roots, 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 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 must be made prior to vine development otherwise severe injury or destruction may result. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

RESTRICTIONS: 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. Preharvest fallow applications must be made at least 30 days prior to planting any non-labeled crop.

8.10.1 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, Cavalo broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

8.10.2 Bulb Vegetables

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

8.10.3 Cucurbit Vegetables and Fruits

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

RESTRICTIONS: For Cantaloupe, Casaba melon, Crenshaw melon, Cucumber, Cherkin, 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.

8.10.4 Leafy Vegetables

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

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

8.10.5 Fruiting Vegetables

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

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

8.10.6 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, black 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, snow pea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

8.10.7 Root and Tuber Vegetables

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

Directed Applications (Nonbearing Ginseng Only)

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

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.

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

8.11 Miscellaneous Crops

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

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following Weed Control, Site Preparation, Spot Treatment (Asparagus).

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

PRECAUTIONS: 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 must be made prior to vine development otherwise severe injury or destruction may result. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

RESTRICTIONS: 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.

Weed Control, Site Preparation

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

PRECAUTIONS: 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 must 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.

RESTRICTIONS: 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 shoots.

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 must be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears.

PRECAUTIONS: Direct contact of the spray with the asparagus may result in serious crop injury. Select and use listed types of spray equipment for postemergence post-harvest applications. A directed spray is any application where the spray pattern is aimed 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.

9.0 TREE, VINE, AND SHRUB CROPS (Alphabetical)

NOTE: THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED TREE, VINE, AND SHRUB CROPS WITHIN SECTION 9 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

TYPES OF APPLICATIONS:

Preplant (Site Preparation) Broadcast Sprays, Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees, vines or bushes), Selective Equipment (shielded sprayers, wiper treatments), 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.

USE INSTRUCTIONS:

This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries, and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. Apply 12 ounces to 4 quarts per acre according to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE SECTIONS" of this label. Utilize rates at the higher end of the 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 8 quarts per acre per year.

The maximum use rates stated throughout this product's labeling applying 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.

PRECAUTIONS: 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. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional directions and precautions.

RESTRICTIONS: 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) must be used to minimize the potential for leakage or drift of herbicide sprays onto crops. 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. Allow a minimum of 3 days between application and transplanting.

Middles (between rows)

USE INSTRUCTIONS: This product will control or suppress annual and perennial seeds 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 an appropriately labeled oxyfluorfen product may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. Use this mixture when weeds are stressed or growing in dense populations. Four ounces per acre of this product plus the specified amount of an appropriately labeled oxyfluorfen product will control annual weeds with a maximum height or diameter of 8 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's purse, annual sowthistle, filaree (suppression), horseweed/marestail, stinging nettle and common purslane (suppression). 9 to 24 ounces per acre of this product plus the specified amount of an appropriately labeled oxyfluorfen product will control common cheeseweed (malva) or hairy fleabane with a maximum height or diameter of 8 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:

Napropamide
Diuron
Oxyfluorfen
Norflurazon
Bromacil plus Diuron
Pendimethalin
Simazine
Oryzalin

RESTRICTIONS: 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 including bahiagrass, Bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 6 ounces of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 4.5 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 4.5 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 ounces of this product per acre, followed by an application of 1.5 to 3 ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of Bermudagrass, apply 1.5 to 2 pints 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 4.5 to 12 ounces of this product per acre east of the Rocky Mountains and 12 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 4.5 to 7.5 ounces of this product per acre must 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.

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

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

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

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

PRECAUTIONS: INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

RESTRICTIONS: DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP.

9.1 Berry Crops

LABELED CROPS: Blackberry (including bingleberry, black satin berry, boysenberry, clematis blackberry, clematisberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalaya berry, hullberry, juneberry, lavacaberry, loquaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black, red), Salal.

TYPES OF APPLICATIONS: Those listed in Section 9.0 plus Spot Treatment in Cranberry Production and Post-Harvest Treatments in Cranberry Production.

PRECAUTIONS: To avoid damage, herbicide sprays must not be allowed to contact desirable vegetation, including green shoots, canes, or foliage.

RESTRICTIONS: 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 directed 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 the ditches (interior and perimeter) of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. Drop water level to remove standing water in ditches prior to application. In hand-held sprayers, use 0.75 to 1.5 percent solution of this product. Spray to wet vegetation, not to run-off.

RESTRICTIONS: For treatments after draw down of water in 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: Applications 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 0.5 to 0.75 percent solution of this product. Spray to wet vegetation, not to run-off. If using hand-held boom sprayers, apply 1.5 to 3.75 quarts of this product per acre.

PRECAUTIONS: 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.

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.

9.2 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 Section 9.0.

USE INSTRUCTIONS (The instructions below pertain to applications in Florida and Texas): For burndown or control of the weeds listed below, apply the listed rates of this product in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

For goatweed, apply 3 to 4.5 pints of this product per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 3 pints per acre when plants are less than 8 inches tall and 4.5 pints per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the addition of an appropriately labeled bromacil plus diuron or diuron product may improve control. Refer to the individual product labels for additional crops, rates, geographic restrictions and precautionary statements.

Perennial weeds:

S = Suppression

B = Burndown

PC = Partial control

C = Control

PRODUCT RATE PER ACRE

Weed Species	1.5 PT	3.0 PT	4.5 PT	7.5 PT
Bermudagrass	B	--	PC	C
Guineagrass				
Texas & Florida Ridge	B	C	C	C
Florida Flatwoods	---	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	-		

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

9.3 Miscellaneous Tree Food Crops

LABELED CROPS: Cactus (fruit and pads), Palm (heart, leaflets), Palm (oil)

TYPES OF APPLICATIONS: Those listed in Section 9.0.

9.4 Non-Food Tree Crops

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

TYPES OF APPLICATIONS: Those listed in Section 9.0.

Directed Sprays, Spot Treatment, Wipers

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: 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.

RESTRICTIONS: UNLESS OTHERWISE DIRECTED, THIS PRODUCT IS NOT 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 labeled crops listed in this section.

PRECAUTIONS: Precautions must be taken to protect nontarget plants during site preparation applications.

9.5 Pome Fruit

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

TYPES OF APPLICATIONS: Those listed in Section 9.0.

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

9.6 Stone Fruit

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

TYPES OF APPLICATIONS: Those listed in Section 9.0.

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

Restrictions on Application Equipment

For cherries, any application equipment listed in Section 9.0 may be used in all states.

Any application equipment listed in Section 9.0 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 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.

9.7 Tree Nuts

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

TYPES OF APPLICATIONS: Those listed in Section 9.0.

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.

9.8 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, Eupia, Ficus Governor's plum, Guava, Ilama, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen Marmaladebox (genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Surinam cherry, Tamarind Tea, Ti (roots and leaves), Wax jambu.

TYPES OF APPLICATIONS: Those listed in Section 9.0 plus Bananacide (Banana Only).

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 establish disease free buffers around plantations. Remove all fruit from the plants within the treatment area prior to treatment. Inject 0.04 ounces (1.0 mL) of this product per each 2 to 3 inches of trunk diameter. Make the injection at least one foot above the ground, except for very small plants, which must 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.

RESTRICTIONS: Do not apply more than 0.5 ounces (15 mL) of this product 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 weed control.

9.9 Vine Crops

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

TYPES OF APPLICATIONS: Those listed in Section 9.0

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.

RESTRICTIONS: Applications must not be made when green shoots, canes or foliage are in the spray zone. Allow a minimum of 30 days between last application and harvest in vine crops. Do not use selective equipment in kiwi.

10.0 PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS

10.1 Alfalfa, Clover, and other Forage Legumes

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

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

Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied before, during or after planting crops listed in this section. The crop may be fed or grazed as soon as it reaches sufficient maturity.

RESTRICTIONS: Applications must be made prior to emergence of the crop. Remove all domestic livestock before application.

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.

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	3 pints	36 hours
All other labeled Legumes above	2.25 pints	3 days

PRECAUTIONS: This application may destroy an alfalfa stand and may severely injure or destroy other labeled crops including clover.

RESTRICTIONS: Make only one application to an existing crop stand per year. Do not apply preharvest to 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.

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 are must be treated at one time. Remove domestic livestock before application and wait 3 days after an 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 3 pints per acre in alfalfa and up to 2.25 pints 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 SECTION" in this label.

RESTRICTIONS: When treatment rates of 3 pints per acre for alfalfa or 2.25 pints 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.

Dormant Alfalfa Use

INSTRUCTIONS

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

Apply 6 to 9 ounces per acre of this product. Apply in the spring to alfalfa that is dormant.

PRECAUTIONS: Applications made after expansion of the first trifoliate leaf of the alfalfa will cause growth reduction and reduced crop yield. Slight discoloration of the alfalfa may occur, but the alfalfa will regreen and regrow under moist soil conditions as effects of this product wear off. Application of this product can cause crop injury.

RESTRICTIONS: Applications must be made after spring temperatures have warmed enough to encourage resumption of weed growth but prior to initiation of trifoliate leaf expansion of the alfalfa.

Do not use ammonium sulfate when spraying dormant alfalfa. Do not use this product where a slight yield reduction in the first cutting of alfalfa cannot be tolerated. Do not make more than one application per year. Allow 36 hours after application before grazing livestock or harvesting.

10.2 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 (Rotation out of CRP), Site Preparation

USE INSTRUCTIONS: This product may be used to prepare CRP land for crop production. Refer to Federal, state and local use guides for CRP renovation directions. 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 7 to 10 ounces of this product per acre in early spring before desirable CRP grasses, including crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS: 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.

RESTRICTIONS: Do not apply more than 4.5 pints per acre per year to CRP grasses.

10.3 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, Removal of Established Stands, Site Preparation, Shielded Sprayers, Over-the-Top Wiper Applications, Spot Treatments, Creating Rows in Annual Grass.

Preplant, Preemergence, At-Planting, Renovation, Removal of Established Stands, 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. It may also be used to destroy remaining unwanted grass vegetation when production fields are converted to alternate species or crops. 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, including 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.

RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques including vertical mowing, coring or slicing must be delayed for 7 days after application to allow proper translocation into underground plant parts. If application rates total 72 ounces per acre or less, no waiting period between treatment and feeding of livestock is required. If the rate is greater than 4.5 pints 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 1.5 to 4.5 pints 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 Applicators" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage.

Over-the-Top Wiper Applications

USE INSTRUCTIONS: Applicators must be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds must 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 within the field. If weeds are contacted. In these instances, repeat treatments may be necessary. For additional instructions, see "Wiper Applicators" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

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

Spot Treatments

USE INSTRUCTIONS: Use a 1.0 percent solution.

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 and remove unwanted vegetation after sod is harvested.

Creating Rows in Annual Ryegrass

USE INSTRUCTIONS: Use 12 to 24 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: 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 low pressure nozzles, or drop nozzles designed to target the application over a narrow band.

To the extent consistent with applicable law, grower assumes all responsibility for crop losses from misapplication.

10.4 Pastures

LABELED CROPS: Any grass (Gramineae family) except Cyn, Sorghum, Sugarcane and those listed in this label under "CEREAL AND GRAIN CROPS", Grasses that may be treated include Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuyu grass, Orchard grass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

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

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 reseedling.

RESTRICTIONS: If application rates total 4.5 pints per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 4.5 pints 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.

RESTRICTIONS: For spot treatments or wiper application methods using rates of 4.5 pints per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper applications are made using rates above 4.5 pints 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 9 to 12 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: Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant.

RESTRICTIONS: 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 4.5 pints 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.

10.5 Rangelands

TYPES OF APPLICATIONS: 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 must eliminate most of the viable seeds.

Grazing of treated areas must 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 9 to 12 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 jointed goatgrass, including seed heads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages potential grass conversion on weedy sites. Fall applications are possible, where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 12 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 growing 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 re-establishing desirable perennial grasses in medusahead-dominated rangelands.

PRECAUTIONS: 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.

RESTRICTIONS: Do not use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding of livestock grazing is required. Do not apply more than 4.5 quarts per acre per year.

11.0 ROUNDUP READY CROPS

The following instructions 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 directions made for crop varieties that do not contain the Roundup Ready gene, in the "ANNUAL AND PERENNIAL CROPS (ALPHABETICAL)" section of this label.

THIS PRODUCT IS ONLY FOR POSTEMERGENCE APPLICATION ONLY IN 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 fruits 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. 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 saved for replanting or transferred to others for replanting. Contact an Authorized Monsanto Retailer for information on obtaining a limited use license.

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

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

ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE 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 plant injury and are NOT for use in over-the-top applications of this product unless otherwise noted in this product label or supplemental labeling.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready crops. Refer to the "MIXING" section for the 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 instructions 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 can be used to control existing weeds prior to crop emergence. Apply a preplant burndown treatment of 12 to 36 ounces per acre of this product. Some weeds, including black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morningglory, woolly cupgrass, shattercane, wild proso millet, burcumber, and many weeds with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application must be made after some regrowth has occurred and at least 10 days after a previous application of this product.

11.1 Alfalfa with the Roundup Ready Gene

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

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications, including Preplant during year of establishment	5.75 quarts per acre
Combined total per acre for in-crop applications	4.5 quarts per acre
For newly established and established stands	
Preplant, At-Planting and Preemergence	1.5 quarts per acre
Single applications	

Preplant, Preemergence, At-Planting

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

Postemergence

USE INSTRUCTIONS: Applications of this product may be made over the top of Roundup Ready alfalfa (in-crop) from emergence until 5 days prior to cutting. To maximize crop yield and quality potential of alfalfa and hay, application of this product must be made after weeds have emerged but before alfalfa growth or re-growth interferes with spray coverage of the target weeds.

Weeds Controlled: For specific rates of application and instructions, refer to the "ANNUAL and PERENNIAL WEEDS RATE SECTIONS" in this booklet. When applied as directed, this product will control these annual and perennial grasses and broadleaf weeds. In addition to those weeds listed in these sections, this product will suppress or control the parasitic weed Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa. Repeat applications may be necessary for complete control.

NEW STAND ESTABLISHMENT (Seeding Year) – Due to the biology and breeding constraints of alfalfa, up to 10 percent of the seedlings may not contain the Roundup Ready gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by this loss of plants, a single application of at least 0.75 quarts per acre of this product must be applied at or before the 4-trifoliolate growth stage. Refer to the following table for application rates during stand establishment (seeding year).

New Stand Establishment (Seeding Year)	
<u>Prior to First Cutting</u>	
From emergence up to 4 trifoliolate leaves	1.5 quarts per acre
From 5 trifoliolate leaves up to 5 days before first cutting	1.5 quarts per acre
<u>After First Cutting</u>	
In-crop application, per cutting, up to 5 days before cutting	1.5 quarts per acre

ESTABLISHED STANDS (Non-seeding Year) – For in-crop applications, per cutting, up to 5 days before cutting, apply this product up to 1.5 quarts per acre.

PRECAUTIONS: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. Where Roundup Ready alfalfa is grown with a companion or cover crop, or is overseeded with a second species, in-crop (over the top) applications of this product will eliminate the non-Roundup Ready (non-glyphosate tolerant) species.

RESTRICTIONS: Any single in-crop application of this product must not exceed 1.5 quarts per acre. Sequential applications of this product must be at least 7 days apart. The combined total per year for all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) must not exceed 5.75 quarts per acre. Remove domestic livestock before application. Wait a minimum of 5 days after last application before grazing or cutting and feeding or forage or hay.

11.2 Canola with the Roundup Ready Gene

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

Maximum Allowable Combined Application Quantities Per Season	
Total of Preplant, At-Planting, Preemergence applications	4 pints per acre
Total in-crop application from emergence to 6-leaf usage	4 pints per acre

Preplant, Preemergence, At-Planting

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

Postemergence

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

Weeds Controlled: For specific rates of application and instructions refer to the "ANNUAL and PERENNIAL WEEDS RATE SECTIONS" in this booklet.

Single Application – Apply 12 to 24 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 12 ounces per acre are applied after the 4-leaf stage.

Sequential Application – Apply up to 24 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 may be made to early emerging annual weeds and perennial weeds including Canada thistle and quackgrass or when controlling weeds with multiple applications times.

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

RESTRICTIONS: No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application must not exceed 4 pints per acre. Allow a minimum of 60 days between last application and canola harvest.

11.3 Corn with the Roundup Ready Gene

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

Maximum Allowable Combined Application Quantities Per Season

Combined total per year for all applications	6 quarts per acre
Total of Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Total in-crop applications from emergence through the V8 stage or 30 inches	3 pints 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	1.5 pints 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 carfentrazone-ethyl, alachlor plus atrazine, acetochlor, acetochlor plus atrazine, alachlor, or flumiclorac at the specified amount of an appropriately label product. 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 must 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.

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. The postemergence application of 18 to 24 ounces per acre of this product must be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inch tall weeds or less.

This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 18 to 24 ounces per acre will control the labeled grasses and broadleaf weeds.

TANK MIXTURES: This product may be applied to tank mixtures with carfentrazone-ethyl, alachlor and atrazine, acetochlor, acetochlor plus atrazine, and alachlor at the specified amount of an appropriately labeled product. This product may be applied in tank mixture with halosulfuron-methyl 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
Carfentrazone-ethyl	18 inches
Acetochlor	
Acetochlor plus Atrazine	
Alachlor plus Atrazine*	25 inches
Alachlor*	
Halosulfuron-methyl	30 inches
Atrazine	12 inches

*Not registered for use as a postemergence application in Texas.

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

RESTRICTIONS: Single in-crop applications of this product are not to exceed 1.5 pints per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 3 pints 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 1.5 pints 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).

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 seeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

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

11.4 Corn 2 with the Roundup Ready Gene

THE FOLLOWING INSTRUCTIONS REFER TO ROUNDUP READY CORN 2 AND MUST NOT BE COMBINED WITH INSTRUCTIONS ABOVE FOR ROUNDUP READY CORN NOT DESIGNATED AS "2".

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

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

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications	6 quarts per acre
Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Single in-crop application	2.25 pints per acre
Total in-crop applications from emergence through the 48 inch stage	4.5 pints 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	1.5 pints 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 alachlor plus atrazine, acetochlor, acetochlor plus atrazine, Alachlor, or flumiclorac at the specified amount of an appropriately labeled product. 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 preemergence (in-crop) application of this product must 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, use drop nozzles. For corn heights 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles to avoid spraying into the whorls of the corn plants.

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. The postemergent application of 18 to 24 ounces per acre of this product must be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inch tall weeds or less.

This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 18 to 24 ounces per acre will control the labeled grasses and broadleaf weeds.

TANK MIXTURES: This product may be applied to tank mixture with carfentrazone-ethyl, alachlor, acetochlor, acetochlor plus atrazine, alachlor and flumiclorac at the specified amount of an appropriately labeled product. This product may be applied in tank mixture with halosulfuron-methyl 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
Acetochlor	11 inches
Acetochlor plus Atrazine	
Alachlor plus Atrazine*	5 inches
Alachlor*	
Halosulfuron-methyl	30 inches
Atrazine	12 inches

*Not registered for use as a postemergence application in Texas.

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

RESTRICTIONS: Single in-crop applications of this product are not to exceed 1.5 pints per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 3 pints 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 1.5 pints per acre of this product may 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).

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 seeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

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

11.5 Cotton with the Roundup Ready Gene

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

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications	4.5 quarts per acre
Total of Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Total over-the-top applications from cracking to layby	3 quarts per acre
Total precision post-directed for hooded applications through layby	1.5 quarts per acre
Maximum preharvest application rate	1.5 quarts per acre

PRECAUTIONS: See the "ROUNDUP READY CROPS" section for precautionary instructions for use in Roundup Ready crops.

RESTRICTIONS: The combined total applications of this product from cotton emergence until harvest must not exceed 4.5 quarts per acre. NO MORE THAN TWO OVER-THE-TOP BROADCAST APPLICATIONS MAY BE MADE FROM CROP EMERGENCE THOROUGH THE 4-LEAF (NODE) STAGE OF DEVELOPMENT. NO MORE THAN TWO APPLICATIONS MUST 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 1.5 pints 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. There are no rotational crop restrictions following applications of this product. Sequential applications of this product must be at least 7 days apart.

Salvage Treatment. This treatment may be used after the 4-leaf stage of development and must only be used where weeds threaten to cause the loss of the crop. 1.5 pints 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 MUST BE USED PER GROWING SEASON.

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

PRECAUTIONS: See the "ROUNDUP READY CROPS" section for 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 1.5 pints per acre per application to Roundup Ready cotton through layby. At this stage, post-directed equipment must be used which directs the spray to the base of the cotton plants. These application methods may be preferred when there is a need to direct the spray onto weeds that are growing under the cotton canopy. Contact of the spray with cotton leaves must 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). Sequential in-crop applications must be at least 7 days apart from any other in-crop application of this product.

PRECAUTIONS: See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section 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 3 pints of this product can 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.

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

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON, HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRICULTURAL 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.

11.6 Flex Cotton with the Roundup Ready Gene

THE FOLLOWING INSTRUCTIONS REFER TO ROUNDUP READY FLEX COTTON AND MUST NOT BE COMBINED WITH INSTRUCTIONS ABOVE FOR ROUNDUP READY COTTON NOT DESIGNATED AS "FLEX".

TYPES OF APPLICATIONS: Preplant, At-planting, Preemergence, Postemergence, Selective Equipment, Preharvest.

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year for all applications	6 quarts per acre
Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Total over-the-top applications from ground cracking to layby	4.5 quarts per acre
Total precision post-directed for hooded applications through layby	3 quarts per acre
Maximum allowed from 60 percent bolls open to 7 days prior to harvest	1.5 quarts per acre

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

There are no rotational crop restrictions for those crops listed on this label following applications of this product. There is a 30-day crop rotation restriction for crops not listed on this product label.

PRECAUTIONS: See the "ROUNDUP READY CROPS" section for precautionary instructions for use in Roundup Ready crops. Tank mixtures with other herbicides may result in reduced weed control or may cause crop injury. Some weeds with multiple germination times or suppressed (stunted) weeds may require sequential applications of this product for control.

RESTRICTIONS: The combined total application of this product from cotton emergence until harvest must not exceed 6 quarts per acre.

Preplant, Preemergence, At-Planting

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

Postemergence

USE INSTRUCTIONS: This product may be applied by aerial or ground application equipment at rates up to 2 quarts per acre per application postemergence to Roundup Ready cotton from the ground cracking stage until layby. Any single postemergence application must not exceed 3 pints per acre. Allow at least 7 days between applications.

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

PRECAUTIONS: See the "ROUNDUP READY CROPS" section for precautionary instructions for use in Roundup Ready crops.

Selective Equipment

USE INSTRUCTIONS: This product may be applied using precision post-directed or hooded spray equipment at rates up to 3 pints per acre per application to Roundup Ready cotton through layby. These application methods may be preferred when there is a need to direct the spray only to weeds that are growing under the crop canopy. Contact of the spray with cotton leaves must be avoided to the maximum extent possible. Use equipment which directs the spray into the lower crop canopy so that weeds in the row are covered. To minimize spray onto the leaves of the cotton plants, use 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). Sequential in-crop applications must be at least 7 days apart from any other in-crop application of this product.

PRECAUTIONS: See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section 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 Flex cotton after 60 percent boll crack any time after layby up to 7 days prior to harvest. Apply 1.5 pints up to 3 pints of this product using either aerial or ground spray equipment. Apply no more than 1.5 pints per acre aerially. NOTE: This product will not enhance the performance of harvest aids when applied to Roundup Ready cotton.

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

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON, HOWEVER, 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.

11.7 Soybeans with the Roundup Ready Gene

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

Maximum Allowable Combined Application Quantities Per Season	
Combined total per year of all applications	6 quarts per acre
Total of Preplant, At-planting, Preemergence applications	3.75 quarts per acre
Total in-crop applications from cracking through flowering	4.5 pints per acre
Maximum preharvest application rate	1.5 pints per acre

PRECAUTIONS: See the "ROUNDUP READY CROPS" section of this label for 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 SECTION" in this label for rate instructions for specific annual weeds. Apply 1.5 pints per acre on 2 to 8 inch tall weeds. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 3 pints per acre in any single in-crop application for control of annual weeds and where heavy weed densities exist.

A 1.5 to 3 pint per acre rate (single or multiple applications) of this product will control or suppress perennial weeds including: Barnyardgrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpet creeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions including drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, sequential application of this may be necessary to control late flushes of weeds. IN THE SOUTHERN STATES A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP. To control giant ragweed, apply 19 ounces per acre of this product when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

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

Preharvest

USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of soybeans. Up to 1.5 pints per acre of this product can be applied by aerial or ground application.

PRECAUTIONS: Care must be taken to avoid excessive seed shatter loss due to ground operation equipment.

RESTRICTIONS: Allow a minimum of 14 days between final application and harvest of soybean grain. 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.

11.8 Sugar beets with the Roundup Ready Gene

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

Maximum Allowable Combined Application Quantities Per Acre	
Combined total per year for all applications	6 quarts per acre
Total of Preplant, At-planting, Preemergence applications	5.75 quarts per acre
Emergence to 8-leaf stage	3.75 pints per acre
Between 8-leaf stage and canopy closure	1.5 pints per acre

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

RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 5.25 pints per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 2.25 pints per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 1.5 pints per acre. Allow a minimum of 30 days between last application and sugar beet harvest.

Preplant, 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 over-the-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 SECTION" in this label for rate instructions 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.

11.9 Seed Production of Select Crops with the Roundup Ready Gene

Seed Production of ALFALFA with the Roundup Ready Gene

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

USE INSTRUCTIONS: This product will control non-glyphosate tolerant alfalfa in seed production fields of alfalfa containing the Roundup Ready gene. Apply up to 3 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Subsequent applications of up to 3 pints per acre each may be applied, if needed to control non-glyphosate tolerant alfalfa plants.

Application timing – This product can be applied to Roundup Ready alfalfa from emergence to harvest.

RESTRICTIONS: DO NOT EXCEED A MAXIMUM RATE OF 6 QUARTS OF THIS PRODUCT PER ACRE PER SEASON. Treated alfalfa or the resulting seed may not be used for food or feed. Do not feed or graze treated alfalfa. Do not process treated alfalfa or resulting seed for food or feed.

Seed Production of LETTUCE with the Roundup Ready Gene

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

USE INSTRUCTIONS: This product will control non-glyphosate tolerant lettuce in seed production fields of lettuce containing the Roundup Ready gene. Apply up to 3 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. A second application up to 3 pints per acre may be applied, if needed to control non-glyphosate tolerant lettuce plants.

Application timing – This product can be applied to Roundup Ready lettuce from emergence to harvest.

RESTRICTIONS: DO NOT EXCEED A MAXIMUM RATE OF 3 QUARTS OF THIS PRODUCT PER ACRE PER SEASON. Treated lettuce may not be used for food or feed. Do not feed or graze treated lettuce. Do not process treated lettuce for food or feed.

Seed Production of RICE with the Roundup Ready Gene

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

USE INSTRUCTIONS: This product will control non-glyphosate tolerant rice in seed production fields of rice containing the Roundup Ready gene. Apply up to 3 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. A second application up to 3 pints per acre may be applied, if needed to control non-glyphosate tolerant rice plants.

Application timing – This product can be applied to Roundup Ready rice from emergence to harvest.

RESTRICTIONS: DO NOT EXCEED A MAXIMUM RATE OF 3 QUARTS OF THIS PRODUCT PER ACRE PER SEASON. Treated rice may not be used for food or feed. Do not feed or graze treated rice. Do not process treated rice for food or feed.

Seed Production of WHEAT with the Roundup Ready Gene

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

USE INSTRUCTIONS: This product will control non-glyphosate tolerant wheat in seed production fields of wheat containing the Roundup Ready gene. Apply up to 1.5 pints of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. A second application up to 1.5 pints per acre may be applied, if needed to control non-glyphosate tolerant wheat plants.

Application timing – This product can be applied to Roundup Ready wheat from emergence to harvest.

RESTRICTIONS: DO NOT EXCEED A MAXIMUM RATE OF 3 PINTS OF THIS PRODUCT PER ACRE PER SEASON. Treated wheat may not be used for food or feed. Do not feed or graze treated wheat. Do not process treated wheat for food or feed.

12.0 NON-CROP USES AROUND THE FARMSTEAD

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

12.1 Weed Control, Trim-and-Edge

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

TANK MIXTURES: This product may be tank mixed with the following active ingredients. Refer to the product labels for approved farmstead sites and application rates. For annual weeds, use 1.5 pints per acre of this product when weeds are less than 6 inches tall, 2.25 pints per acre when weeds are 6 to 12 inches tall and 3 pints per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 3 to 7.5 pints 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 listed rates.

Imazapyr, isopropylamine salt	Sulfometuron
Dicamba, diglycolamine salt	Pendimethalin
Prodiamine	Diuron plus Imazapyr
Diuron	Simazine
Imazapic-ammonium	Oryzalin
Metsulfuron	Chlorsulfuron
Oxadiazon	2,4-D
Bromacil and Diuron	

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

12.2 Greenhouse/Shadehouse

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

12.3 Chemical Mowing

USE INSTRUCTIONS: This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 4.5 ounces of this product per acre when treating Kentucky bluegrass. Use 6 ounces of this product when treating tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers. Use 12 ounces of this product per acre when treating bermudagrass. Use 16 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: Use only in areas where some temporary injury and discoloration of perennial grasses can be tolerated.

12.4 Cut Stump

TYPES OF APPLICATION: Treating cut stumps. Many non-stump 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 per gallon of water to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications must be made during periods of active growth and full leaf expansion.

Alder	Reed, glaucous
Eucalyptus	Sweetgum
Madrone	Sweetgum
Oak	Twin oaks
Pepper, Brazilian	Tan bark
Pine, Austrian	Willow

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.

12.5 Habitat Management

TYPES OF USES: Habitat Restoration and Maintenance, Wildlife Food Plots, Wildlife Food Plots containing Roundup Ready Canola.

Habitat Restoration and Maintenance

USE INSTRUCTIONS: This product may be used to control exotic and other undesirable vegetation in habitat management areas. Applications can be made to allow recovery of native plant species, 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, including Roundup Ready canola, 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. For specific product application instructions on Roundup Ready canola wildlife food plots, see the "Canola with the Roundup Ready Gene" section of this label.

RESTRICTIONS: Do not process treated Roundup Ready canola seed from wildlife food plots for food or domestic livestock feed. Do not graze or feed treated Roundup Ready canola from wildlife food plots to domestic livestock. There are no rotational restrictions for planting any wildlife food species or for allowing native species to repopulate the area following applications of this product.

13.0 ANNUAL WEEDS RATE SECTION

When water carrier volumes are between 3 and 10 gallons per acre for ground applications and between 3 and 5 gallons per acre for aerial applications, the following use rates will control the annual weeds listed in the table below:

- 1.5 pints per acre – grass and broadleaf annual weeds less than 6 inches in height or circumference and vines less than 3 inches in length.
- 2.25 pints per acre – grass and broadleaf annual weeds 6 to 12 inches in height or circumference and vines 3 to 6 inches in length.
- 3 pints per acre – grass and broadleaf annual weeds greater than 12 inches in height or circumference and vines greater than 6 inches in length.

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

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

Maximum size refers to the maximum plant height, length of runner or vines, or circumference of rosette plants in inches.

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 48 ounces per acre where heavy weed densities exist.

ANNUAL WEEDS RATE TABLE

(Alphabetically by Species)

RATE
(fluid ounces per acre)

	12	18	24	30	36
WEED SPECIES	Maximum height/length (in inches)				
Ammannia, purple	3	6	12	-	18
Annoda, spurred	-	2	3	5	8
Barley	18	18+	-	-	-
Barnyardgrass	-	3	6	7	9
Bassia, fivehook	-	-	6	-	-
Beggarweed, Florida	-	5	8	-	-
Bittercress	12	20	-	-	-

(continued)

ANNUAL WEEDS RATE TABLE

(Alphabetically by Species)

RATE
(fluid ounces per acre)

	12	18	24	30	36
WEED SPECIES	Maximum height/length (in inches)				
Bluegrass, annual	10	-	-	-	-
Bluegrass, bulbous	6	-	-	-	-
Brome, downy ^{1,2}	6	12	-	-	-
Brome, Japanese	6	12	24	-	-
Browntop panicum	6	8	12	-	24
Buckwheat, wild ³	-	1	-	-	-
Burcucumber	-	6	-	-	18
Buttercup	12	20	-	-	-
Carolina geranium	-	-	4	-	9
Carpetweed	-	6	12	-	-
Cheat ²	6	20	-	-	-
Chervil	20	-	-	-	-
Chickweed	-	12	18	-	-
Cocklebur	12	18	24	-	36
Copperleaf, Hophornbeam	-	2	4	-	6
Copperleaf, Virginia	-	2	4	-	6
Coreopsis, plains	-	6	12	-	18
Corn, volunteer	6	12	20	-	-
Corn Speedwell	-	-	-	-	-
Crabgrass	3	-	12	-	-
Crowfootgrass	-	-	6	-	12
Cutleaf evening primrose	-	-	3	-	6
Devilsclaw (unicorn plant)	-	3	6	-	-
Dwarf dandelion	12	-	-	-	-
Eastern manna grass	8	12	-	-	-
Eclipta	-	4	8	12	-
Fall panicum	4	-	6	-	12
Falsedandelion	-	20	-	-	-
Falseflax, smallseed	12	-	-	-	-
Fiddleneck	-	6	12	-	-
Field Pennycress	6	12	-	-	-
Filaree	-	-	6	-	12
Fleabane, annual	6	20	-	-	-
Fleabane, hairy (<i>Conyza bonariensis</i>)	-	-	6	-	10
Fleabane, rough	3	6	12	-	-
Florida pusley	-	-	4	-	6

(continued)

ANNUAL WEEDS RATE TABLE

(Alphabetically by Species)

RATE
(fluid ounces per acre)

	12	18	24	30	36
WEED SPECIES	Maximum height/length (in inches)				
Foxtail, giant, bristly, yellow	6	12	20	-	-
Foxtail, Carolina	10	-	-	-	-
Foxtail, green	12	-	-	-	-
Goatgrass, jointed	6	12	-	-	-
Goosegrass	-	3	6	-	12
Grain sorghum (milo)	6	12	25	-	-
Groundcherry	-	3	-	-	9
Groundsel, common	-	6	-	-	-
Hemp sesbania	-	2	4	6	8
Henbit	-	-	6	-	12
Horseweed/Marestail (<i>Conyza canadensis</i>)	-	6	-	-	18
Itchgrass	6	-	12	-	18
Jimsonweed	-	-	12	-	18
Johnsongrass, seedling	6	12	18	-	24
Junglerice	-	3	6	7	9
Knotweed	-	-	6	-	12
Kochia ⁴	-	3to6	12	-	-
Lambsquarters	-	6	12	-	20
Little barley	-	12	-	-	-
London rocket	6	-	24	-	-
Mayweed	-	2	6	12	18
Morningglory, annual (<i>Ipomoea spp</i>)	-	-	3	-	6
Mustard, blue	-	12	18	-	-
Mustard, tansy	6	12	18	-	-
Mustard, tumble	6	12	18	-	-
Mustard, wild	6	12	18	-	-
Nightshade, black	-	4	6	-	12
Nightshade, hairy	-	4	6	-	12
Oats	3	6	18	-	-
Pigweed species	-	12	18	24	-
Prickly lettuce	-	6	12	-	-
Purslane	-	-	3	-	6
Ragweed, common	-	6	12	-	18
Ragweed, giant	-	6	12	-	18
Red rice	-	-	4	-	-
Rye, volunteer/cereal ²	6	18	18+	-	-

(continued)

ANNUAL WEEDS RATE TABLE

(Alphabetically by Species)

RATE
(fluid ounces per acre)

	12	18	24	30	36
WEED SPECIES	Maximum height/length (in inches)				
Ryegrass	-	-	6	-	12
Sandbur, field	6	12	-	-	-
Sandbur, longspine	6	12	-	-	-
Shattercane	6	12	20	-	-
Shepherd's purse	6	12	-	-	-
Sicklepod	-	2	4	-	8
Signalgrass, broadleaf	-	3	-	7	9
Smartweed, Pennsylvania	-	-	6	-	9
Sowthistle, annual	-	-	6	-	12
Spanishneedles	-	-	6	-	12
Speedwell, purslane	12	-	-	-	-
Sprangletop	6	12	20	-	-
Spurge, prostrate	-	6	12	-	-
Spurge, spotted	-	6	12	-	-
Spurry, umbrella	6	-	-	-	-
Stinkgrass	-	12	-	-	-
Sunflower	12	18	-	-	-
Swinecress	-	5	12	-	-
Teaweed/Prickly sida	-	2	4	-	6
Texas panicum	6	-	12	-	24
Thistle, Russian ⁵	-	6	12	-	-
Velvetleaf	-	-	6	-	12
Virginia pepperweed	-	18	-	-	-
Waterhemp	-	-	6	-	12
Wheat ²	6	12	18	-	-
Wheat, (overwintered)	-	6	12	-	18
Wild oats	3	6	18	-	-
Wild proso millet	-	6	12	-	18
Witchgrass	-	12	-	-	-
Woolly cupgrass	-	6	12	-	-
Yellow rocket	-	12	20	-	-

¹ For control of downy brome in no-till systems, use 18 ounces per acre.

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

³ Use 18 ounces per acre of this product to control wild buckwheat in the cotyledon to 2-leaf stage. Use 24 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 24 ounces followed by 24 ounces of this product per acre.

⁴ Do not treat kochia in the button stage.

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

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

9 to 12 ounces of this product plus the specified amount of an appropriately labeled dicamba or 2,4-D or picloram-potassium product per acre will control the following weeds with the maximum height or length indicated: 6 inches – prickly lettuce, maretail/horseweed, morning glory, kochia (dicamba only) wild buckwheat (Tordon 22K only); 12 inches – cocklebur lambsquarters, pigweed, Russian thistle (2,4-D only).

12 ounces of this product plus the specified amount of an appropriately labeled 2,4-D product 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.

PRECAUTIONS: Some crop injury may occur if dicamba or picloram-potassium is applied within 45 days of planting.

DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA

13.2 Annual Weeds – Hand-Held or High-Volume Equipment

For control of weeds listed in the "ANNUAL WEEDS RATE SECTION", apply a 0.5 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 0.75 percent solution.

For best results, use a 1.5 percent solution on harder-to-control perennials, including Bermudagrass, dock, hemp 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 8 percent solution for woody brush and trees.

13.3 Annual Weeds – Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington. In Oregon and Washington, do not exceed the maximum allowable rate in each state of atrazine per acre.

18 to 22 ounces of this product plus the specified amount of an appropriately labeled atrazine product per acre will control the following weeds: Barnyardgrass (requires 17.5 ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 0.125 pound of dicamba for control). Ensure that the specific atrazine product is registered for application at the desired site.

13.4 Annual Weeds – Rates for Higher Water Carrier Volumes

For ground applications with water carrier volumes between 11 and 40 gallons per acre and aerial applications between 6 and 15 gallons per acre, apply 1.5 to 3 pints of this product per acre. Use 1.5 pints per acre if weeds are less than 6 inches tall, 2.25 pints per acre if weeds are 6 to 12 inches tall, and 3 pints 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.

14.0 PERENNIAL WEEDS RATE SECTION

Apply to actively growing perennial weeds.

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the listed 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

(Alphabetically by Species)

Weed Species	Rate (PT/A)	Water Volume (GPA)	Hand-Held % Solution
Alfalfa	1.5 – 2.4	3 – 10	1.5%

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 must be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed	6.0	3 – 20	1.25%
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For partial control, apply when most of the plants are in bloom. Repeat applications will be required to maintain control.

Anise (fennel) ¹	---	---	0.75 – 1.5%
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For hand held, apply as a spray-to-wet treatment.

Bahiagrass ²	4.5 – 7.5	3 – 20	1.5%
Bentgrass	2.25	10 – 20	1.5%

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

Bermudagrass	4.5 – 7.5	3 – 20	1.5%
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For control, apply 7.5 pints of this product per acre. For partial control, apply 4.5 pints per acre. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control.

Bermudagrass, Water (knotgrass)	1.5 – 2.25	3 – 10	1.5%
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Apply 2.25 pints of this product in 5 to 10 gallons of water per acre. Apply when water Bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

Fall applications only: Apply 1.5 pints of this product in 5 to 10 gallons of water per acre. Fallow fields must 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	4.5 – 7.5	3 – 20	1.5%
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Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.

For control, apply 6.0 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6.0 pints east of Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late in the summer or fall. Fall treatments must be applied before a killing frost.

Also for control, apply 3 pints of this product plus the specified amount of an appropriately labeled dicamba product in 10 to 20 gallons of water per acre. Do not apply by air.

For suppression on irrigated agricultural land, apply 1.5 to 3.0 pints of this product plus the specified amount of an appropriately labeled 2,4-D product in 10 to 20 gallons of water per acre with ground equipment only. Applications must be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 1.5 to 3.0 pints of this product plus the specified amount of an appropriately labeled 2,4-D product in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tillage systems only. Applications must be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1.5 to 7.5 pints of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky	1.5 – 3.0	3 – 40	1.5%
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Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints 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	4.5 – 7.5	3 – 40	1.5%
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Apply 6.0 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6.0 pints 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	4.5 – 6.0	3 – 40	1.5%
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Apply to fully expanded fronds that are at least 18 inches long.

Bromegrass, smooth	1.5 – 3.0	3 – 40	1.5%
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Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints 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.

Bursage, woolly-leaf	---	3 – 20	1.5%
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For control, apply 3 pints of this product plus the specified amount of an appropriately labeled dicamba product per acre. For partial control, apply 1.5 pints of this product plus the specified amount of an appropriately labeled dicamba product per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed ²	3.0 – 4.5	3 – 40	1.5%
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Cattail ²	4.5 – 7.5	3 – 40	1.5%
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Clover; red or white ¹	4.5 – 7.5	3 – 20	1.5%
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Also for control, apply 12 to 24 ounces of this product plus the specified amount of an appropriately labeled 2,4-D product in 3 to 10 gallons of water per acre.

Cogongrass	4.5 – 7.5	10 – 40	1.5%
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Apply when cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dallisgrass ²	4.5 – 7.5	3 – 20	1.5%
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Dandelion ¹	4.5 – 7.5	3 – 40	1.5%
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Also for control, apply 12 ounces of this product plus the specified amount of an appropriately labeled 2,4-D product in 3 to 10 gallons of water per acre.

Dock, Curly ¹	4.5 – 7.5	3 – 40	1.5%
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Also for control, apply 12 to 24 ounces of this product plus the specified amount of an appropriately labeled 2,4-D product in 3 to 10 gallons of water per acre.

Dogbane, hemp	6.0	3 – 40	1.5%
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Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall.

For suppression, apply 12 ounces of this product plus the specified amount of an appropriately labeled 2,4-D product in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

Fescue (except tall) ²	4.5 – 7.5	3 – 20	1.5%
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Fescue, tall	1.5 – 4.5	3 – 40	1.5%
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Apply 4.5 pints of this product per acre when most plants have been reached boot-to-early seedhead stage of development.

Fall applications only: Apply 24 ounces of this product in 3 to 10 gallons of water per acre. Apply to fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 9.5 ounces per acre of this product will improve long-term control and control seedlings germinating after fall treatments or the following spring.

Guineagrass	4.5	3 – 40	0.75%
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Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. In Texas and ridge of Florida, use 3 pints for control. In the flatwoods region of Florida, 4.5 pints is required for control.

Horsenettle ¹	4.5 – 7.5	3 – 20	1.5%
Horseradish	6.0	3 – 40	1.5%

Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.

Iceplant ¹	---	---	1.5 – 2.0%
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Thorough coverage is necessary for best control.

Jerusalem artichoke ¹	4.5 – 7.5	3 – 20	1.5%
Johnsongrass	0.75 – 4.5	3 – 40	0.75%

In annual cropping systems apply 1.5 to 3.0 pints of this product per acre. Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage (no-till) is not practiced, apply 2.0 to 4.5 pints 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, or later, or more days after application before tillage. Do not tank mix with residual herbicides when using 1.5 pints of this product per acre.

For burndown of Johnsongrass, apply 12 ounces of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression) – Apply a 0.75 percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage must be uniform and complete.

Kikuyugrass	3.0 – 4.5	3 – 40	1.5%
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Spray when most kikuyugrass is at least 8 inches in height (3 or 4 leaf stage of growth). Allow 3 or more days after application before tillage.

Knapweed	6.0	3 – 40	1.5%
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Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.

Lantana	---	---	0.75-1.0%
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Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

Lespedeza ¹	4.5 – 7.5	3 – 20	1.5%
Milkweed, common	4.5	3 – 40	1.5%

Apply when most plants have reached the late bud to flower stage of growth.

Muhly, wirestem	1.5 – 3.0	3 – 40	1.5%
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Use 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre or in pasture, sod or non-crop areas. Spray when the wirestem muhly is 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.

Mullein, common ¹	4.5 – 7.5	3 – 20	1.5%
Napiergrass ²	4.5 – 7.5	3 – 20	1.5%
Nightshade, silverleaf	3.0	3 – 10	1.5%

Applications must be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost.

Nutsedge, Purple or yellow	0.75 – 4.5	3 – 40	0.75-1.5%
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Apply 4.5 pints of this product per acre or apply a 0.75 to 1.5 percent solution for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets that have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications: 1.5 to 3.0 pints of this product in 3 to 10 gallons of water per acre will also provide control. Make applications when a majority of the plants are in the 3 to 5 leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3 to 5 leaf stage. Subsequent applications will be necessary for long-term control.

For partial control of existing plants, apply 12 to 48 ounces of this product in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.

Orchardgrass	1.5 – 3.0	3 – 40	1.5%
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Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have received boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints 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.

Orchardgrass sods going to no-till corn. Apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

Pampasgrass	---	---	1.5%
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Pampasgrass must be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Paragrass ²	4.5 – 7.5	3 – 40	1.5%
Phragmites	4.5 – 7.5	10 – 40	0.75-1.5%

For partial control, and best results, treat during late summer or fall when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Poison hemlock	---	---	0.75 – 1.5%
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For hand held, apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Thorough coverage is necessary for best control.

Pokeweed, common	---	3 – 40	1.5%
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Apply to actively growing plants up to 24 inches tall.

Quackgrass	1.5 – 4.5	3 – 40	1.5%
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In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 3 pints of this product. Do not tank mix with residual herbicides when using the 1.5 pint rate. Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall application. 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 3 to 4.5 pints of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 6 inches tall.

Redvine	1.25 – 3.0	5 – 10	1.5%
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For suppression, apply 18 ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 3 pints per acre. Apply listed 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%
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Best results are obtained when applications are made in late summer to fall.

Ryegrass, perennial	1.5 – 4.5	3 – 40	0.75%
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In annual cropping systems apply 1.5 to 3 pints of this product per acre. Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage (no-till) is not practiced, apply 3 to 4.5 pints 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 1.5 pints of this product per acre.

Smartweed, swamp ¹	4.5 – 7.5	3 – 40	1.5%
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Also, for control, apply 9.5 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	3.0 – 4.5	3 – 40	1.5%
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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 – 10	1.5%
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For suppression, apply 12 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	3.0	10 – 40	1.5%
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Best results are obtained when applications are made during the rosette, bolting and early flower stages.

Sweet potato, wild	---	--	1.5%
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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%
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For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

Thistle, Canada	3.0 – 4.5	3 – 40	1.5%
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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 24 ounces of this product or 12 ounces of this product plus the specified amount of an appropriately labeled 2,4-D product, in 3 to 10 gallons of water per acre. Allow rosette growth to a minimum of 4 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Timothy ²	3.0 – 4.5	3 – 40	1.5%
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Torpedograss	6.0 – 7.5	3 – 40	1.5%
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For partial control, apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost.

Trumpet creeper	2.0	5 – 10	1.5%
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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 ²	4.5 – 7.5	3 – 20	1.5%
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Velvetgrass ²	4.5 – 7.5	3 – 20	1.5%
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Wheatgrass, western ²	3.0 – 4.5	3 – 44.5 – 7.50	1.5%
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¹ Apply when most plants have reached the early bud stage of growth.

² Apply when most plants have reached the early heading stage of growth.

15.0 WOODY BRUSH AND TREES RATE SECTION

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
(Alphabetically by Species)

Weed Species	Rate (PT/A)	Hand Held % Solution
Alder	4.5 – 6.0	0.75 – 1.5%
Ash ¹	3.0 – 7.5	0.75 – 1.5%
Aspen, quaking	3.0 – 4.5	0.75 – 1.5%
Bearmat (Bearclover) ¹	3.0 – 7.5	0.75 – 1.5%
Beech ¹	3.0 – 7.5	0.75 – 1.5%
Birch	3.0 – 7.5	0.75%
Blackberry	4.5 – 6.0	0.75 – 1.5%

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. For blackberries ripe set or dropped in late fall, blackberry can be controlled by applying a 0.75 percent solution of this product. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 4.5 to 6 pints of this product in 10 to 40 gallons of water per acre.

Blackgum	3.0 – 7.5	0.75 – 1.5%
Bracken	3.0 – 7.5	0.75 – 1.5%
Broom, French, Scotch	--	1.5%
Buckwheat, California ^{1,2}	--	0.75 – 1.5%
Cascara ¹	3.0 – 7.5	0.75 – 1.5%
Catsclaw ¹	3.0 – 7.5	0.75 – 1.5%
Ceanothus ¹	3.0 – 7.5	0.75 – 1.5%
Chamise ²	--	0.75%
Cherry; butter, black, pin	3.0 – 4.5	0.75 – 1.5%
Coyote brush	--	1.5%

Apply when at least 50 percent of the new leaves are fully developed.

Dogwood ¹	3.0 – 7.5	0.75 – 1.5%
Elderberry	3.0	0.75%
Elm ¹	3.0 – 7.5	0.75 – 1.5%
Eucalyptus	--	1.5%

For control of eucalyptus resprouts apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.

Florida holly (Brazilian Peppertree) ¹	3.0 – 7.5	0.75 – 1.5%
Gorse ¹	3.0 – 7.5	0.75 – 1.5%
Hasardia ^{1,2}	--	0.75 – 1.5%
Hawthorn	3.0 – 4.5	0.75 – 1.5%
Hazel	3.0	0.75%
Hickory ¹	3.0 – 7.5	0.75 – 1.5%
Honeysuckle	3.0 – 6.0	0.75 – 1.5%
Hornbeam, American ¹	3.0 – 7.5	0.75 – 1.5%
Kudzu	6.0	1.5%

Repeat applications may be required to maintain control

Locust, black ¹	3.0 – 6.0	0.75 – 1.5%
Madrone resprouts ¹	--	1.5%

Apply to resprouts that are 3 to 6 feet tall. Best result are obtained with spring/early summer treatments.

Manzanita ¹	3.0 – 7.5	0.75 – 1.5%
Maple, red	3.0 – 6.0	0.75 – 1.5%

Apply a 0.75 to 1.5 percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 3 to 6 pints of this product per acre.

Maple, sugar		0.75 – 1.5%
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Apply when at least 50 percent of the new leaves are fully developed.

Monkey flower ^{1,2}	--	0.75 – 1.5%
Oak; black, white ¹	3.0 – 6.0	0.75 – 1.5%
Oak, post	4.5 – 6.0	0.75 – 1.5%
Oak; northern, pin	--	0.75 – 1.5%

Apply when at least 50 percent of the new pin leaves are fully developed.

Oak; southern red	3.0 – 4.5	0.75 – 1.5%
Persimmon ¹	3.0 – 7.5	0.75 – 1.5%
Pine	3.0 – 7.5	0.75 – 1.5%
Poison ivy/Poison oak	6.0 – 7.5	1.5%

Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Poplar, yellow ¹	3.0 – 7.5	0.75 – 1.5%
Redbud, eastern	3.0 – 7.5	0.75 – 1.5%
Rose, multiflora	3.0	0.75%

Treatments must be made prior to leaf defoliation by leaf-eating insects.

Russian olive ¹	3.0 – 7.5	0.75 – 1.5%
Sage, black ²	--	0.75%
Sage, white ¹	3.0 – 7.5	0.75 – 1.5%
Sage brush, California ²	--	0.75%
Salmonberry	3.0	0.75%
Salt-cedar	3.0 – 7.5	0.75 – 1.5%
Sassafras ¹	3.0 – 7.5	0.75 – 1.5%
Sourwood ¹	3.0 – 7.5	0.75 – 1.5%
Sumac; poison, smooth, winged ¹	3.0 – 6.0	0.75 – 1.5%
Sweetgum	3.0 – 4.5	0.75 – 1.5%
Swordfern ¹	3.0 – 7.5	0.75 – 1.5%
Tallowtree, Chinese ²	--	0.75%
Tan oak resprouts ¹	--	0.75%

Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall application.

Thimbleberry	3	0.75%
Tobacco, tree ¹	--	0.75 – 1.5%
Trumpet creeper	3 – 4.5	0.75 – 1.5%
Vine maple ¹	3 – 7.5	0.75 – 1.5%
Virginia creeper	3 – 7.5	0.75 – 1.5%
Waxmyrtle, southern ¹	3 – 7.5	0.75 – 1.5%
Willow	4.5 – 6	0.75%

¹ Partial Control

² Thorough coverage of foliage is necessary for best results.

16.0 WEED RESISTANT MANAGEMENT

For resistance management, GLYPPEX 5 extra™ is a Group 9 herbicide. The weed population may contain or develop plants naturally resistant to GLYPPEX 5 extra and other Group 9 herbicides. The resistant biotype may dominate the weed population if these herbicides are used repeatedly in the same use site. Appropriate resistance-management strategies should be followed.

16.1 Weed Resistance Management Recommendations

To delay herbicide resistance take one or more of the following steps:

- Avoid the consecutive use of GLYPPEX 5 extra or other target site of action Group 9 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both applied at the tank mix or prepack rate on the weed(s) of concern.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout fields after application to verify that the treatment was effective and to monitor weed populations for early signs of resistance development.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants; and
- Surviving plants mixed with controlled individuals of the same species.

Report any incidence of non-performance of this product against a particular weed species to APEX Ag Chem, Inc. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

16.2 Glyphosate-Resistant Biotypes Management

In order to reduce the spread of confirmed glyphosate resistant biotypes, apply the following practices:

- 1) When a naturally occurring resistant biotype(s) is present, tank mix or apply sequentially with an appropriate herbicide with a different mode of action to achieve control.
- 2) Use cultural and mechanical control practices, such as crop rotation or tillage, as appropriate.
- 3) Rotation to other Roundup Ready crops is one method for adding other herbicides into a continuous Roundup Ready system.
- 4) Control escaping weeds including resistant biotypes before they set seed and scout treated fields after herbicide application.
- 5) Clean equipment thoroughly prior to exiting fields known to contain resistant biotypes.

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

16.3 Control and Management of Glyphosate-Resistant Horseweed in Cotton, Corn, and Soybean

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 instructions, 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.

Cotton:

Preplant:

For control of horseweed, apply this product (1.5 pints per acre) in a tank-mix with dicamba, dimethylamine salt at the specified amount of an appropriately labeled product 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 the dicamba, dimethylamine salt application and planting of cotton.

Post-directed (Roundup Ready® Cotton varieties only):

Management of early season weed competition and the development of a height differential between cotton and the horseweed is often achieved by a combination of preplant burndown and postemergent over-the-top and/or directed applications. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. In-crop post-directed applications of the specified amount of an appropriately labeled MSMA product tank-mixed with the specified amount of an appropriately labeled diuron product must be made when the temperature is 80° F or higher.

Soybeans:

Preplant:

Apply a tank mixture of this product (1.5 pints per acre) with the specified amount of an appropriately labeled 2,4-D product 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 and/or crop consultant.

In-crop (Roundup Ready Soybean varieties only):

It is strongly encouraged that horseweed must be controlled prior to planting using preplant burndown treatments. In-crop Roundup Ready soybeans, apply a tank mixture of this product (1.5 pints per acre) with the specified amount of an appropriately labeled 2,6-diisopropyl naphthalene product. This treatment must be used as a salvage treatment only for a horseweed infestation that was not controlled preplant. Application must be made between full emergency of the first trifoliate leaf and 50 percent flowering stage or soybeans. At the time of treatment, horseweed must not exceed 6 inches in height.

Corn:

Preplant, At-Planting, Post-emergence:

Apply a tank mixture of this product (1.5 pints per acre) plus the specified amount of an appropriately labeled 2,4-D product 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.

The specified amount of an appropriately labeled atrazine product per acre may be included in the tank mixture to provide residual control. Refer to the atrazine product label for specific use instructions.

In-crop (Roundup Ready Corn hybrids only):

In crop Roundup Ready corn, apply a tank mixture with this product (1.5 pints per acre) plus the specified amount of an appropriately labeled dicamba, diglycolamine product per acre or the specified amount of an appropriately labeled 2,4-D product per acre. Apply between corn emergence and the 5-leaf stage of growth (approximately 8 inches tall).

ATTENTION

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

16.0 LIMIT OF WARRANTY AND LIABILITY

To the extent consistent with applicable law, APEX Ag Chem, Inc. 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 EXPRESSED 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.

To the extent consistent with applicable law, buyer and all users shall promptly notify this Company of any claims which are based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, 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 conditions other than those set forth in the Directions in or on the soil, crop, or treated vegetation.

To the extent consistent with applicable law, 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.

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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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	 BLK	 375
		 BLK
PATTERN VARNISH: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		

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