This sample label is current as of January 23, 2002. The product descriptions and recommendations provided in this sample label are for background information only. Always refer to the label on the product before using Monsanto or any other agrichemical product.

21196A3-4/CG

Fire Power™

Herbicide by Monsanto

For control or suppression of weeds in dormant tree and vine crops, fallow systems, and cotton (including Roundup Ready®, cotton varieties).

Complete Directions for Use

EPA Reg. No. 524-520

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.

SHAKE PRODUCT CONTAINER WELL BEFORE USE

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Read the entire label before using product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

THIS IN AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION OR REPACKAGING. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

1.0 INGREDIENTS

ACTIVE INGREDIENTS*:	
Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	40.0%
Oxyfluorfen, 2-chloro-1-(3-ethoxy-4-nitrophenoxy)-4-(trifluoromethyl) benzene	2.5%
OTHER INGREDIENTS:	57.5%
	100.0%

*Contains 479 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt, equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate and 30 grams per litre or 0.25 pound per U.S. gallon of the active ingredient, oxyfluorfen.

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314) 694-4000.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES MODERATE EYE IRRITATION.

Avoid contact with eyes or clothing. Wear long-sleeved shirt and long pants, socks and shoes.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or physician for treatment advice.
• Have the product container or label with you when calling a poison control center or physician, or going for treatment. • You may also contact, **314-694-4000**, collect, day or night, for emergency medical treatment information. • This product is identified as **Fire Power™ herbicide, EPA Registration No. 524-520**.	

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

Personal Protective Equipment (PPE)

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

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

User Safety Recommendations

Users should:

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

3.2 Environmental Hazards

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

This product is highly toxic to aquatic invertebrates, aquatic plants, wildlife and fish. Use with care when applying in areas frequented by wildlife or adjacent to any body of water or wetland area. Do not apply when weather conditions favor drift or erosion from target areas. Runoff may be hazardous to aquatic organisms in neighboring areas.

3.3 Physical or Chemical Hazards

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

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

DIRECTIONS FOR USE

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

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 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 statement on this label about Personal Protective Equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

4.0 STORAGE AND DISPOSAL

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

Keep container closed to prevent spills and contamination.

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

See container label for "STORAGE AND DISPOSAL" instructions.

5.0 GENERAL INFORMATION (How this product works)

Product Description: This product is a postemergent, systemic herbicide for control or suppression of emerged annual broadleaf weeds and grasses in fallow systems and dormant tree and vine crops. This product is also for use as a post-directed/hooded sprayer application for broadleaf weed control and suppression in cotton and Roundup Ready cotton. It is formulated as a water-based suspension concentrate. 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.

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

Stage of Weeds: Annual weeds are easiest to control when they are small. Refer to the "ANNUAL WEEDS RATE TABLE" for recommendations for specific weeds.

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

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

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

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

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

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

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

5.1 General Application Precautions and Restrictions

Do not use any plants treated with Fire Power herbicide for feed or forage.

Do not feed or allow animals to graze on any areas treated with the Fire Power herbicide.

Avoid direct application to any body of water.

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

Do not contaminate irrigation water or water used for domestic purposes.

Rotation Crop Restrictions:

Do not rotate to small-grain crops (includes barley, buckwheat, corn, oats, pearl millet, proso millet, popcorn, rice, rye, sorghum, triticale, wheat, wild rice) within 10 months following a treatment with this product.

Do not direct seed any crop, other than Fire Power herbicide-labeled crops, within 60 days following the treatment with this product.

Do not transplant seedling crops, other than the Fire Power herbicide-labeled crops, within 30 days following treatment with this product.

ATTENTION

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.

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

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

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

SHAKE PRODUCT CONTAINER WELL BEFORE USE

6.1 Mixing with Water

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

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 a wettable powder is used, make a slurry with the water carrier, and add it **SLOWLY** through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture **SLOWLY** through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
7. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive and water soluble liquid.

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

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

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

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

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

	Amount of Fire Power Herbicide					
Desired Volume	1/2%	1%	1 1/2%	2%	5%	10%
1 Gal	2/3 oz	1 1/3 oz	2 oz	2 2/3 oz	6 1/2 oz	13 oz
25 Gal	1 pt	1 qt	1 1/2 qt	2 qt	5 qt	10 qt
100 Gal	2 qt	1 gal	1 1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

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

6.4 Surfactants

Use of a nonionic surfactant is recommended. Do not reduce rates of this product when adding surfactant. When adding additional surfactant use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants with at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

6.5 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 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 ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

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

6.6 Colorants and Dyes

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

6.7 Drift Control Additives

Drift control additives may be used with all equipment types, except wiper applicators, sponge bars and Controlled Droplet Applicator (CDA) equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

SPRAY DRIFT MANAGEMENT

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

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

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

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

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

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.

7.1 Aerial Equipment

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

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label or supplemental labeling. Unless otherwise specified, do not exceed 2 quarts per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems. Refer to the individual use area sections of this label for recommended volumes, application rates and further instructions.

FOR AERIAL APPLICATION IN CALIFORNIA OR ARKANSAS, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS. FOR AERIAL APPLICATIONS, CONSULT WITH STATE OR LOCAL AUTHORITIES REGARDING ANY ADDITIONAL REQUIREMENTS FOR AERIAL TREATMENTS.

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

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

Equipment Care and Maintenance

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

AERIAL SPRAY DRIFT MANAGEMENT

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

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

Importance of Droplet Size

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

Controlling Droplet Size

- **Volume:** Use high flow-rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Swath Adjustment

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

Wind

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

Temperature and Humidity

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

Temperature Inversions

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

Sensitive Areas

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

7.2 Ground Broadcast Equipment

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

7.3 Hand-Held and High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE", 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 1 percent solution.

For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, and field bindweed.

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds.

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 noncrop site specified on this label or supplemental labeling and only when specifically recommended in cropping systems.

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

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

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

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

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

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted In these instances, repeat treatment may be necessary.

Shielded and Hooded Applicators

Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

A hooded sprayer is a type of shielded applicator. The spray pattern is fully enclosed including on the top, sides, front and back, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground. When applying to 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.

Wiper Applicators and Sponge Bars

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

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

Do not use wiper equipment when weeds are wet.

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

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

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

7.5 CDA Equipment

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

For the control of annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

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

8.0 CROPS

This section is generally organized by crop category. There may be several labeled crops listed in a crop category.

Timing of Application

This product should be applied postemergence to vigorously growing weeds when they have reached the recommended size given in the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" sections of this label. Application should be delayed until maximum emergence of the target weeds, but before weeds exceed the maximum size recommended. **For annual weeds, allow 1 day after treatment before tillage.**

Reduced control may result if treatments are made during poor growing conditions such as drought stress, disease or insect damage or if weeds have been mowed, grazed or cut. Heavy dust on foliage or an overstory canopy covering targeted weeds may also reduce control.

Heavy rainfall or irrigation soon after application may wash this product off the foliage and a repeat treatment may be required for adequate control.

8.1 Tree and Vine Crops (General)

TYPES OF APPLICATIONS: General weed control, middles (between rows of trees), strips (in row of trees), selective equipment (except kiwi) in **DORMANT** tree and vine crops.

NOTE: THIS SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL **CITRUS** CROPS (NON-BEARING ONLY), TREE FRUITS, TREE NUTS AND VINE CROPS. SEE THE INDIVIDUAL CROP SECTIONS FOR INSTRUCTIONS, PRECAUTIONS AND RESTRICTIONS FOR SPECIFIC CROPS.

This product may be applied in middles, strips and for general weed control in established citrus groves, tree fruit and tree nut orchards, and vineyards. This product may also be used for site preparation prior to transplanting these crops. For rates refer to the "ANNUAL WEEDS RATE TABLE". Single applications can not exceed 4 quarts of Fire Power herbicide per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year. Allow a minimum of 3 days between application and transplanting. Applications may be made with boom equipment, CDA, shielded sprayers, handheld and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed.

Middles (between rows)

USE INSTRUCTIONS: This product will control or suppress annual weeds 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.

Strips (in rows)

USE INSTRUCTIONS: This product may be applied in rows of tree or vine crops and may also be tank mixed with the following products:

Devrinol™ 50 DF
Direx™ 4L
Karmex™
Karmex DF
Kerb™
Krovar™ I
Krovar II
Prowl™
Princep Caliber™ 90
Simazine™ 4L
Simazine 80W
Sim-Trol™ 4L
Solicam™ DF
Surflan™ AS
Surflan 75W

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

Selective Equipment

Shielded and wiper applicators may be used in tree crops and grapes. Refer to the individual crop sections for time interval between application and harvest.

PRECAUTIONS, RESTRICTIONS: Fire Power herbicide or any of the combinations recommended on this label should be applied only to healthy growing trees and vines. Direct spray toward the base of tree or vines. Avoid direct plant contact.

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

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 AND VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING CUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

THE FOLLOWING RESTRICTIONS APPLY ONLY TO TREE FRUITS, NUT AND VINE CROPS:

Unless otherwise directed, do not apply Fire Power herbicide during the period between bud swell and completion of final harvest or when fruit or nuts are present. This product may be applied upon completion of final harvest.

In Arizona and California, this product may be applied during the period following completion of final harvest up to February 15 (February 1st in the Coachella Valley, CA). Applications made after the calendar dates above, but prior to bud swell, may result in significant crop injury and are the responsibility of the user.

8.2 Vine Crops

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

TYPES OF APPLICATIONS: General weed control, Middles (between rows), Strips (in row), Selective equipment (except kiwi).

NOTE: FOR GENERAL USE DIRECTIONS, SEE THE "TREE AND VINE CROPS (GENERAL)" SECTION. THE FOLLOWING DIRECTIONS ARE SPECIFIC TO VINE CROPS.

Direct spray toward the base of vines.

For rates refer to the "ANNUAL WEEDS RATE TABLE". Single applications can not exceed 4 quarts Fire Power herbicide per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

PRECAUTIONS, RESTRICTIONS: Applications should not be made when green shoots, canes or foliage are in the spray zone. Applications to grapes or kiwi that are not staked or trellised are not recommended, unless vines are free-standing.

8.3 Tree Fruits (Including Tropical)

LABELED CROPS: Apple, Apricot, Avocado, Cherry (Sweet, Sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince, Date, Fig, Persimmon, Pomegranates.

TYPES OF APPLICATIONS: General weed control, Middles (between rows of trees), Strips (in row of trees), Selective equipment.

For rates refer to the "ANNUAL WEEDS RATE TABLE". Single applications can not exceed 4 quarts of Fire Power herbicide per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year

NOTE: FOR GENERAL USE DIRECTIONS, SEE THE "TREE AND VINE CROPS (GENERAL)" SECTION. THE FOLLOWING DIRECTIONS ARE SPECIFIC TO TREE FRUITS.

Restrictions on Application Equipment

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

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Oregon and Washington.

8.4 Tree Nuts

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

TYPES OF APPLICATIONS: General weed control, Middles (between rows of trees), Strips (in row of trees), Selective equipment.

NOTE: FOR GENERAL USE DIRECTIONS, SEE THE "TREE AND VINE CROPS (GENERAL)" SECTION. THE FOLLOWING DIRECTIONS ARE SPECIFIC TO TREE NUTS.

For rates refer to the "ANNUAL WEEDS RATE TABLE". Single applications can not exceed 4 quarts of Fire Power herbicide per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

8.5 Citrus Crops (Nonbearing Only)

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

FOR USE ONLY IN PERMANENTLY ESTABLISHED GROVES IN ARIZONA AND CALIFORNIA.

NOTE: FOR GENERAL USE DIRECTIONS, SEE THE "TREE AND VINE CROPS (GENERAL)" SECTION. THE FOLLOWING DIRECTIONS ARE SPECIFIC TO CITRUS CROPS.

TYPES OF APPLICATIONS: General weed control, middles (between rows of trees), strips (in row of trees), selective equipment.

For rates, refer to the "ANNUAL WEEDS RATE TABLE". Single applications should not exceed 4 quarts of this product per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

PRECAUTIONS, RESTRICTIONS: Applications may be made to newly planted trees or to young trees that will not bear fruit for one year. Unless otherwise directed, do not apply this product during periods of new foliage growth. Applications should be made after foliage has fully expanded and hardened off. Direct spray toward the base of trees. Avoid direct spray contact on the citrus foliage.

8.6 Cotton (For Varieties Which Do Not Contain the Roundup Ready Gene)

Do **NOT** combine these instructions with the recommendations made in Section 8.7 of this label for cotton varieties which contain the Roundup Ready gene.

TYPES OF APPLICATIONS: Preplant and selective equipment (hooded or shielded sprayers).

Preplant

USE INSTRUCTIONS: This product may be applied before planting cotton. Do not apply this product within 7 days prior to planting. The fallow beds should be worked thoroughly to a depth of at least 2.5 inches prior to planting.

Selective Equipment

USE INSTRUCTIONS: This product may be applied through shielded or hooded sprayers which do not allow contact of the spray with the cotton plants.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all four sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come in contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

Applications may be made from 6-inch tall cotton through layby. CONTACT OF THE SPRAY SOLUTION WITH COTTON FOLIAGE, GREEN STEMS, OR FRUIT WILL RESULT IN SEVERE CROP INJURY OR DESTRUCTION. Do not apply within 75 days of harvest.

8.7 Roundup Ready Cotton

Do **NOT** combine these instructions with the recommendations made in Section 8.6 of this label for cotton varieties which **do not** contain the Roundup Ready gene.

NOTE: Roundup Ready seed, and the method of selectively controlling weeds using glyphosate on a Roundup Ready crop, are protected under several U.S. Patents, including 5,352,605 and 5,633,435. A license to use Roundup Ready seed must be obtained 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 your Authorized Monsanto Retailer for information on obtaining a limited use license.

TYPES OF APPLICATIONS: Preplant, selective equipment (hooded or shielded sprayers), and precision post-directed equipment.

Preplant

USE INSTRUCTIONS: This product may be applied up to a maximum of 5 quarts per acre prior to planting Roundup Ready cotton. Do not apply this product within 7 days prior to planting. The fallow beds should be worked thoroughly to a depth of at least 2.5 inches prior to planting.

Selective Equipment

USE INSTRUCTIONS: This product may be applied in-crop to Roundup Ready cotton **after the fifth leaf (node) stage of development through layby** using selective equipment (through shielded or hooded sprayers) or through post-directed equipment, which does not allow contact of the spray with the cotton plants. Cotton must be at least 6 to 8 inches tall. IN-CROP APPLICATIONS OF THIS PRODUCT THROUGH PRECISION POST-DIRECTED EQUIPMENT DIRECTED ON TO COTTON, IS PERMITTED ONLY ON IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS COTTON WITH THE ROUNDUP READY GENE. Post-directed equipment that directs the spray to the base of the cotton plants should be used. Contact of the spray with cotton leaves should be avoided to the maximum extent possible. To minimize the spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 PSI).

For best results, make applications while weeds are small (less than 3 inches). Any single application using selective equipment or post-directed equipment should not exceed **1 quart per acre** of this product. No more than 2 applications should be made from the fifth leaf through layby. Sequential in crop applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications. Do not apply within 75 days of harvest.

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

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

NOTE: Total in-crop applications of all herbicides containing glyphosate as an active ingredient, whether applied as a mixture or separately, may not exceed 3 pounds of glyphosate active ingredient from the cracking stage to layby in Roundup Ready cotton. When using this product as part of an overall weed control program that includes other herbicides containing glyphosate as an active ingredient, calculate the application rates and ensure that the total use of this and other glyphosate containing products does not exceed stated maximum use rates.

8.8 Fallow Systems

TYPES OF APPLICATION: Chemical fallow, Preplant fallow beds.

NOT FOR USE ON FALLOW BEDS TO BE PLANTED TO SOYBEANS IN CALIFORNIA.

USE INSTRUCTIONS: This product may be applied during the fallow period 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 60 days prior to direct seeding and 30 days prior to transplanting crops. For rates refer to the "ANNUAL WEEDS RATE TABLE". Single applications should not exceed 4 quarts of this product per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year. This product may be used as a substitute for tillage to control annual weeds in fallow fields. Ground or aerial application equipment may be used.

MINIMUM TREATMENT—PLANTING INTERVAL (DAYS)

DIRECT SEEDED CROPS	Fire Power Herbicide Use Rate: Up to 4 quarts/acre	Up to 8 quarts/acre
Carrot	90 Days	90 Days
Potato	60 Days	60 Days
Sugarbeet	60 Days	90 Days
Other root/tuber crops	90 Days	90 Days
Onions	180 Days	180 Days
Other bulb vegetables	180 Days	180 Days
Cabbage	90 Days	90 Days
Cauliflower	90 Days	90 Days
Other brassica crops	120 Days	120 Days
Lettuce	90 Days	120 Days
Other leafy vegetables (except brassica crops)	120 Days	120 Days
Pepper	90 Days	120 Days
Tomato	60 Days	120 Days
Other fruiting vegetables	120 Days	120 Days
Cantaloupe	60 Days	90 Days
Squash	90 Days	120 Days
Watermelon	60 Days	60 Days
Other cucurbits	90 Days	120 Days
Dry beans	60 Days	60 Days
Peanut	60 Days	60 Days
Other legume vegetables	60 Days	60 Days
Safflower	60 Days	60 Days
Cereal grains (includes barley, buckwheat, corn, proso millet, pearl millet, oats, popcorn, rice, rye, sorghum, triticale, wheat, wild rice)	10 Months	10 Months
Cotton and soybean	7 Days	7 Days

MINIMUM TREATMENT—PLANTING INTERVAL (DAYS)

TRANSPLANTED CROPS	Fire Power Herbicide Use Rate: Up to 4 quarts/acre	Up to 8 quarts/acre
Broccoli	0 Days	30 Days
Cabbage	0 Days	30 Days
Cauliflower	0 Days	30 Days
Celery	30 Days	30 Days
Conifer	0 Days	0 Days
Garlic	0 Days	30 Days
Grape/Kiwi	3 Days	3 Days
Onion	0 Days	30 Days
Pepper	30 Days	30 Days
Strawberries	30 Days	30 Days
Tomato	30 Days	30 Days
Treefruit/Nut/Citrus	3 Days	3 Days

IMPORTANT: The fallow beds should be worked thoroughly to a depth of at least 2.5 inches prior to planting. FAILURE TO ACHIEVE THOROUGH AND COMPLETE INCORPORATION, OR TO FOLLOW THE RECOMMENDED TREATMENT-PLANTING INTERVAL MAY RESULT IN STAND REDUCTION AND/OR VIGOR REDUCTION AND/OR DEATH OF THE PLANTED CROP.

For best results, apply this product after most weed seeds have germinated but before seedhead formation in grasses or flower bud formation in broadleaves.

When applied as directed, this product will provide control or suppression of weeds listed in the annual and perennial weed tables.

8.9 Vegetable Crops

LABELED CROPS: Broccoli (all), Cabbage (all), Cauliflower, Garlic, Horseradish*, Onion.

TYPES OF APPLICATIONS: Preplant.

USE INSTRUCTIONS: This product may be applied up to 4 quarts per acre prior to transplanting these listed vegetables. For rates between 4 and 8 quarts per acre, do not transplant within 30 days following the Fire Power herbicide treatment. *For Horseradish, applications **must** be made after the horseradish roots have been planted and prior to plant emergence.

PRECAUTIONS, RESTRICTIONS: When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to transplanting. Residues can be removed by a single 0.5 inch application of water, either by natural rainfall or via a sprinkler system. Applications made at emergence will result in injury or death to emerged seedlings. Do not apply this product preemergence to direct-seeded broccoli, cabbage or cauliflower. Do not apply this product post-transplant or postemergence to broccoli, cabbage or cauliflower. Do not apply this product in an enclosed greenhouse structure, as injury to plant foliage may result.

8.10 Miscellaneous Crops

LABELED CROPS: Artichokes (Globe)

TYPES OF APPLICATIONS: Preplant and Shielded or Hooded sprayers in row-middles

Preplant:

USE INSTRUCTIONS: This product may be applied before transplanting artichokes. Applications must be made at least 30 days prior to transplanting. For rates refer to "ANNUAL WEEDS RATE TABLE". Single applications may not exceed 4 quarts of this product per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

Shielded and Hooded Sprayers in Row-middles:

USE INSTRUCTIONS: This product may be used for postemergence weed control between artichoke rows if applied through shielded or hooded sprayers which do not allow contact of the spray with the artichoke plants. Refer to the "Selective Equipment" section of this label for essential precautions when using Shielded and Hooded Sprayers, to avoid crop injury caused by leakage of spray mists onto crops. For rates refer to the "ANNUAL WEEDS RATE TABLE" section of this label. Single applications of this product should not exceed 4 quarts per acre. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

PRECAUTIONS, RESTRICTIONS: CONTACT OF THE SPRAY SOLUTION WITH ARTICHOKE FOLIAGE, GREENS STEMS OR FLOWER BUDS MAY RESULT IN SEVERE CROP INJURY OR DESTRUCTION. Do not apply this product to artichoke plantings within 5 days of harvest. Do not apply this product to artichoke plantings within 60 days after cutting back or transplanting.

9.0 ANNUAL WEEDS RATE TABLE (Alphabetically by Species)

Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended.

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

Always use the higher rate within the provided rate range when applications are made to larger weeds within the range.

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

For those rates less than 48 fluid ounces per acre, this product may be used up to 48 fluid ounces per acre where heavy weed densities exist.

ANNUAL WEEDS RATE TABLE

WEED SPECIES	RATE (fluid ounces per acre) 24 - 32	40 - 48
	Maximum Height/Length (in inches)	
Barnyardgrass	3 - 8	9 - 12
Bluegrass, annual	8 - 12	– –
Buttercup, smallflower	12 - 24	– –
Carolina geranium	2 - 4	5 - 9
Carpetweed	6 - 12	– –
Cheeseweed *(Malva parviflora)*	3 - 6	6 - 9
Chickweed	12 - 24	– –
Cocklebur	12 - 24	– –
Crabgrass	6 - 24	– –
Cutleaf evening primrose	2 - 3	4 - 6
Fiddleneck, Coast	4 - 6	7 - 12
Filaree, broadleaf	– - 3	6 - 12
Filaree, whitestem	– - 3	6 - 12
Filaree, redstem	– - 3	6 - 12
Fleabane, hairy (*Conyza bonariensis*)	– - 3	6 - 9
Fleabane, rough	3 - 12	– –
Florida pusley	2 - 4	5 - 6
Goosegrass	3 - 8	9 - 18
Groundcherry, cutleaf	6 - 12	– –
Groundcherry, Wright	6 - 12	– –
Groundsel, common	6 - 12	– –
Hemp sesbania	2 - 4	5 - 8
Henbit	4 - 6	7 - 20
Horseweed/ Marestail (*Conyza canadensis*)	6 - 12	– –
Jimsonweed	4 - 6	7 - 12
Johnsongrass, seedling	12 - 24	– –
Junglerice	3 - 8	9 - 12
Knotweed	3 - 12	13 - 20
Lambsquarters	6 - 12	13 - 20
London rocket	6 - 12	– –
Morningglory (*Ipomoea spp.*)	2 - 4	5 - 6
Mustard, blue	6 - 18	– –
Mustard, tansy	6 - 18	– –
Mustard, tumble	6 - 18	– –
Mustard, wild	6 - 18	– –
Nightshade, black	6 - 18	– –
Nightshade, hairy	6 - 18	– –
Pigweed	12 - 24	– –
Prickly lettuce	6 - 20	– –
Purslane	4 - 6	7 - 12
Redmaids	6 - 12	– –
Ryegrass, common	4 - 6	7 - 18
Shepherd's-purse	6 - 12	– –
Sicklepod	2 - 4	5 - 8
Smartweed, ladysthumb	4 - 8	9 - 12
Smartweed, Pennsylvania	4 - 8	9 - 12
Sowthistle, annual	4 - 6	7 - 12
Spurge, prostrate	6 - 20	– –
Spurge, spotted	6 - 20	– –
Teaweed/Prickly sida	1 - 3	4 - 6
Velvetleaf South	2 - 4	5 - 8
North	3 - 12	– –
Virginia pepperweed	12 - 18	– –

10.0 PERENNIAL WEEDS RATE TABLE (Alphabetically by Species)

Apply to actively growing perennial weeds.

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

Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

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.

Weed Species	Rate (QT/A)	Water Volume(GPA)	Hand-Held % Solution
Alfalfa	1-2	3-10	2%
After fall cutting and 6 to 8 inch regrowth. Deep till 7 days after application.			
Alligatorweed*	4	3-20	1.5%
Bloom stage. Repeat applications will be required to maintain control.			
Anise (fennel)	--	--	1-2%
Bud to full-bloom stage.			
Bahiagrass	3-5	3-20	2%
Early head stage.			
Bentgrass*	1.5	10-20	2%
Resumed growth of crown area to at least 3 inches in height.			
Bermudagrass	3-5	3-20	2%
Actively growing and seedheads present.			
Bermudagrass, water (knotgrass)	1-1.5	5-10	2%
12 to 18 inch weeds, 7 days before tilling. This product is not registered in California for use on water bermudagrass.			
Bindweed, field	0.5-5	3-20	2%
At or beyond full bloom in late summer or fall. Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. Do not apply by air. Do not treat when weeds are under drought stress.			
Bluegrass, Kentucky	2	3-30	2%
Boot-to-early seedhead stage.			
Blueweed, Texas	3-5	3-30	2%
At or beyond full bloom in late summer or fall.			
Brackenfern	3-4	3-30	1-1.5%
Fully expanded fronds which are at least 18 inches long.			
Bromegrass, smooth	2	3-30	2%
Boot-to-early seedhead stage.			
Bursage, woolly-leaf	—	3-20	2%
For control, apply 2 quarts plus 1 pint of Banvel per acre at or beyond flowering and new active growth.			
Canarygrass, reed	2-3	3-30	2%
Boot-to-head stage.			
Cattail	3-5	3-30	2%
Early head stage.			
Clover; red, white	3-5	3-20	2%
Early bud stage.			
Cogongrass	3-5	10-30	2%
At least 18 inches tall in late summer or fall.			
Dallisgrass	3-5	3-20	2%
Early head stage.			
Dandelion	3-5	3-30	2%
Early bud stage. Also for control, apply 16 fluid ounces plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre.			
Dock, curly	3-5	3-30	2%
Early bud stage. Also for control, apply 16 fluid ounces plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre.			
Dogbane, hemp	4	3-30	2%
Late bud to flower stage in late summer or fall. For suppression, apply 16 fluid ounces plus 0.5 pound a.i. of 2,4-D in 3 to 10 GPA by ground and 3 to 5 GPA by air.			
Fescue (except tall)	3-5	3-20	2%
Early head stage.			
Fescue, tall	1-3	3-30	2%
Boot-to-early seedhead stage. Fall applications only: Apply 1 quart in 3 to 10 GPA to fescue with 6 to 12 inches of new growth.			
Guineagrass	3	3-30	1%
7-leaf stage.			
Horsenettle	3-5	3-20	2%
Early bud stage.			
Horseradish	4	3-30	2%
Late bud to flower stage in late summer or fall.			
Iceplant	—	—	1.5-2%
At or beyond the early bud stage. Thorough coverage is necessary for best control.			
Jerusalem artichoke	3-5	3-20	2%
Early bud stage.			
Johnsongrass	1-3	3-30	1%
Boot-to-head stage of growth or in the fall prior to frost.			
Kikuyugrass	2-3	3-30	2%
At least 8 inches in height (3 or 4-leaf stage of growth).			
Knapweed	4	3-30	2%
Late bud to flower stage in late summer or fall.			
Lantana	—	—	1-1.25%
At or beyond the bloom stage.			
Lespedeza	3-5	3-20	2%
Early bud stage.			
Milkweed, common	3	3-30	2%
Late bud to flower stage.			
Muhly, wirestem	1-2	3-30	2%
8 inches or greater.			
Mullein, common	3-5	3-20	2%
Early bud stage.			
Napiergrass	3-5	3-20	2%
Early head stage.			
Nightshade, silverleaf	2	3-10	2%
Apply when at least 60 percent of the plants have berries.			
Nutsedge; purple, yellow	1-3	3-30	1-2%
Apply 3 quarts when plants are in flower or when new nutlets can be found at rhizome tips. Sequential applications: 1 to 2 quarts when plants are in the 3- to 5-leaf stage (less than 6 inches tall).			
Orchardgrass	2	3-30	2%
Boot-to-early seedhead stage, actively growing plants.			
Pampasgrass	—	—	1.5-2%
At or beyond the boot stage of growth.			
Paragrass	3-5	3-20	2%
Early head stage.			
Phragmites*	3-5	10-30	1-2%
Actively growing and in full bloom in late summer or fall.			
Poison hemlock	—	—	1-2%
Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.			
Pokeweed, common	1	3-30	2%
Apply to actively growing plants up to 24 inches tall.			
Quackgrass	1-3	3-30	2%
6 to 8 inches tall followed by deep tillage.			
Redvine*	2	5-10	2%
At least 18 inches tall in late September or early October.			
Reed, giant	—	—	2%
Apply in late summer to fall for best results.			
Ryegrass, perennial	1-3	3-30	1%
Boot-to-head stage or in the fall prior to frost. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.			
Smartweed, swamp	3-5	3-30	2%
Early bud stage. Also for control, apply 16 fluid ounces plus 0.5 pound a.i. of 2,4-D in 3 to 10 GPA in the late summer or fall.			
Sowthistle, perennial	2-3	3-30	2%
At or beyond bud stage.			
Spurge, leafy*	—	3-10	2%
Apply 16 fluid ounces plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall.			
Starthistle, yellow	2	10-30	2%
Rosette, bolting and early flower stages.			
Sweet potato, wild*	—	—	2%
At or beyond the bloom stage.			
Thistle, artichoke*	—	—	2%
At or beyond the bloom stage of growth.			
Thistle, Canada	2-3	3-30	2%
At or beyond the bud stage, actively growing.			

Weed Species	Rate (QT/A)	Water Volume(GPA)	Hand-Held % Solution
Timothy	2-3	3-30	2%
Boot-to-head stage.			
Torpedograss*	4-5	3-30	2%
At or beyond the seedhead stage.			
Trumpetcreeper*	2	5-10	2%
At least 18 inches tall in late September or October.			
Vaseygrass	3-5	3-20	2%
Early head stage.			
Velvetgrass	3-5	3-20	2%
Early head stage.			
Wheatgrass, western	2-3	3-30	2%
Boot-to-head stage.			

*Partial Control

11.0 LIMIT OF WARRANTY AND LIABILITY

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

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

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

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

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