

# Glyphosate Original Calybra Ca

ACTIVE INGREDIENT	BY WEIGHT
*Glyphosate: N-(phosphonomethyl)	
Glycine, in the form of its isopropylamine salt	
INERT INGREDIENTS	
TOTAL	

\*Contains 480 grams per liter or 4 pounds per U.S.gallon of the active ingredient glyphosate, in the form of its isopropylamine salt.

Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

# WARNING — AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### **FIRST AID**

IF IN EYES: Immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.

**IF SWALLOWED:** This product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED: Remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

For medical emergencies involving this product, call toll free 1-888-324-7598.

See Label for Additional Precautions and Directions for Use

DISTRIBUTED BY:

GRIFFIN L.L.C.

Specimen Label

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### WARNING

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF SWALLOWED OR INHALED. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: - long-sleeved shirt and long pants - shoes plus socks - protective eyewear.

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

**Engineering Control Statement:** 

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

### **USER SAFETY RECOMMENDATIONS**

Users should:

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

### **ENVIRONMENTAL HAZARDS**

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

### PHYSICAL OR CHEMICAL HAZARDS

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

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

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

### AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: – coveralls – waterproof gloves – shoes plus socks – protective eyewear.

### NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow others to enter the treated area until sprays have dried.

### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Keep container closed to prevent spills and contamination.

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

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

Bulk Containers: Triple rinse emptied bulk containers. Then offer for recycling or reconditioning, or dispose of in a manner approved by state and local authorities.

Plastic 1-Way Containers: Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### GENERAL INFORMATION

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

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

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions. 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 visual effects of control. 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.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) 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.

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.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the precautionary statements and all other information appearing on the labels of all herbicides used.

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.

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

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.

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

### INFORMATION ON RESISTANT WEEDS

When herbicide with the same mode of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant weed biotypes may survive a correctly applied herbicide treatment, propagate, and become dominate in that field. These resistant weed biotypes may not be adequately controlled. Cultural practices such as tillage, preventing weed escapes from going to seed, and using herbicides with different modes of action within and between crop season can aid in delaying the proliferation and possible dominance of herbicide resistant weed biotypes.

# APPLICATION INFORMATION MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

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-GUN APPLICATIONS SHOULD 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.

### **MIXING**

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

### **TANK MIXTURES**

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

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

- 1. Place a 20 to 35 mesh screen or wetting basket over filling port.
- Through the screen, fill the spray tank one-half full with water and start agitation.
- If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
- If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- 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.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

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

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

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

### **ADDITIVES**

**SURFACTANTS:** Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5% surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70% active ingredient or a 1% surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70% active ingredient. Read and carefully observe surfactant precautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE: The addition of 1 to 2% dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D, Banvel™ or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality ammonium sulfate may contain material that will not readily dissolve, which could result in nozzle tip plugging. To determine quality, perform a jar test by adding ⅓ cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

**NOTE:** The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

### **COLORANTS OR DYES**

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

### 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 (for aerial applications in the states of Arkansas and California see additional instructions at end of the label).

### **Broadcast Spray**

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

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

**Selective Equipment -** Recirculating sprayers, shielded sprayers and wiper applicators.

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.

- \*This product plus Oust®, Banvel® or 2,4-D tank mixtures may not be applied by air in California.
- \*\*This product is not registered in California or Arizona for use in mistblowers.

### **AERIAL EQUIPMENT**

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA OR ARKANSAS, REFER TO THE ADDITIONAL INSTRUCTIONS AT THE END OF THIS LABEL.

### BROADCAST EQUIPMENT

For control of annual or perennial weeds listed on this label using 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 on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

### CONTROLLED DROPLET APPLICATION (CDA)

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

For the control of labeled annual weeds with hand-held CDA units, apply a 20% 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 labeled perennial weeds, apply a 20 to 40% 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.

### HAND-HELD AND HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and 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.

For control of annual weeds listed on this label, apply a 0.5% solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow 3 or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1% solution. For best results, use a 2% solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 5% solution for annual and perennial weeds and a 5 to 10% solution for woody brush and trees.

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 Glyphosate Original						
Desired						
Volume	1/2%	1%	11/2%	2%	5%	10%
1 Gal	⅔ oz	1⅓ oz	2 oz	2⅔ oz	6½ oz	13 oz
25 Gal	1 pt	1 qt	1½ qt	2 qt	5 qt	10 qt
100 Gal	2 qt	1 gal	1½ 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.

### SELECTIVE EQUIPMENT

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

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

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

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

### AVOID CONTACT WITH DESIRABLE VEGETATION.

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

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

### SHIELDED APPLICATORS

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

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

Band width in inches Row width in inches	X	Herbicide Broadcast RATE per acre	=	Herbicide Band RATE per acre
Band width in inches Row width in inches	X	Broadcast VOLUME of solution per acre	=	Band VOLUME of solution per acre

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

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

### WIPER APPLICATORS

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 two applications are made in opposite directions.

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

Do not use wiper equipment when weeds are wet.

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

Do not add surfactant to the herbicide solution.

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

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

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

### **ANNUAL GRASSES**

Corn, Zea mays

Panicum, Texas, Panicum texanum

Rye, common, Secale cereale

Shattercane, Sorghum bicolor

**ANNUAL BROADLEAVES** 

Sicklepod, Cassia obtusifolia

Spanishneedles, Bidens bipinnata

Starbur, bristly, Acanthospermum hispidum

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following weeds:

### **ANNUAL BROADLEAVES**

Beggarweed, Florida, Desmodium tortuosum

Dogfennel, Eupatorium capilliflorium

Pigweed, redroot, Amaranthus retroflexus

Ragweed, common, Ambrosia artemisiifolia

Ragweed, giant, Ambrosia trifida

Sunflower, Helianthus annuus

Thistle, musk, Carduus nutans

Velvetleaf, Abutilon theophrasti

**PERENNIAL GRASSES** 

Bermudagrass, Cynodon dactylon

Guineagrass, Panicum maximum

Johnsongrass, Sorghum halepense

Smutgrass, Sporobolus poiretii

Vaseygrass, Paspalum urvillei

PERENNIAL BROADLEAVES

Dogbane, hemp, Apocynum cannabinum

Milkweed, Ascelepias syriaca

Nightshade, silverleaf, Solanum elaeagnifolium

Thistle, Canada, Cirsium arvense

### **WEEDS CONTROLLED**

This herbicide controls many annual and perennial grasses and broadleaf weeds.

### ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

# LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- 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. (See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for approved sites.)
- 2. A nonionic surfactant is added at 0.5 to 1% by total spray volume. Use 0.5% surfactant concentration when using surfactants which contain at least 70% active ingredient or a 1% surfactant concentration for those surfactants containing less than 70% active ingredient.

**NOTE:** The addition of 2% dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

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.

Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

WEED ODEOLES	MAXIMUM	RATE PER ACRE*
WEED SPECIES Foxtail	HEIGHT/LENGTH 12"	(Fluid Ounces) 8 oz.
Setaria spp.		
Barnyardgrass	6"	12 oz.
Echinochloa crus-galli	(0 to 4" (4 to 6"	16 oz.¹) 24 oz.¹)
Bluegrass, annual	_ (	,
Poa annua	-	
Brome, downy** Bromus tectorum		
Mustard, blue	-	
Chorispora tenella	-	
Mustard, tansy Descurainia pinnata		
Mustard, tumble	-	
Sisymbrium altissimum	_	
Mustard, wild		
Sinapis arvensis Spurry, umbrella	-	
Holosteum umbellatum		_
Barley	12"	
Hordeum vulgare Rye	-	
Secale cereale	_	
Sandbur, field		
Cenchrus spp. Shattercane	-	
Sorghum bicolor		
Stinkgrass	-	
Eragrostis cilianensis Wheat	18"	-
Triticum aestivum	10	
Morningglory	2"	16 oz.
lpomoea spp.	-	
Sicklepod Cassia obtusifolia		
Bluegrass, bulbous	6"	-
Poa bulbosa	=	
Cheat Bromus secalinus		
Chickweed, common	-	
Stellaria media	-	
Chickweed, mouseear Cerastium vulgatum		
Corn	-	
Zea mays	-	
Goatgrass, jointed Aegilops cylindrica		
Groundsel, common	-	
Senecio vulgaris	_	
Henbit		
Lamium amplexicaule Horseweed/Marestail	-	
Conyza canadensis	_	
Lambsquarters, common		
Chenopodium album Pennycress, field	-	
Fanweed Thlaspi arvense	_	
Rocket, London		
Sisymbrium irio Ryegrass, Italian	-	
Lolium multiflorum	_	
Shepherdspurse	-	
Capsella bursa-pastoris Spurge, annual	-	
Euphorbia spp.		
Buttercup	12"	-
Ranunculus spp. Cocklebur	-	
Xanthium strumarium		
Crabgrass	-	
Digitaria spp.	-	
Dwarfdandelion Krigia cespitosa		
Falseflax, smallseed	-	
Camelina microcarpa	-	
Foxtail, Carolina Alopecurus carolinianus		
, nopodardo daroninarido	-	

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Johnsongrass, seedling	12"	16 oz.
Sorghum halepense		
Oats, wild	_	
Avena fatua	_	
Panicum, fall		
Panicum dichotomiflorum	_	
Panicum, Texas		
Panicum texanum	-	
Pigweed, redroot		
Amaranthus retroflexus	-	
Pigweed, smooth		
Amaranthus hybridus	-	
Witchgrass		
Panicum capillare	3 to 4"	24.07
Sicklepod Cassia obtusifalia	3 10 4	24 oz.
Cassia obtusifolia Signalgrass, broadleaf	4"	-
Brachiaria platyphylla	4	
Horseweed/Marestail	7 to 12"	-
Conyza canadensis	7 10 12	
Lambsquarters, common	-	
Chenopodium album		
Spurge, annual	-	
Euphorbia spp.		
Rice, red	4"	32 oz.
Oryza sativa	_	
Teaweed		
Sida spinosa		_
Sprangletop	6"	
Leptochloa spp.		_
Geranium, Carolina	12"	
Geranium carolinianum	-	
Goosegrass		
Eleusine indica	-	
Primrose, cutleaf evening		
Oenothera laciniate	-	
Pusley, Florida		
Richardia scabra Sicklepod	5 to 12"	-
Cassia obtusifolia	5 10 12	
Spanishneedles	-	
Bidens bipinnata		
Filaree	12"	48 oz.
Erodium spp.		10 02.
Sprangletop	-	
Leptochloa spp.		
,		

<sup>1</sup>Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

\*For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.

### TANK MIXTURES

Glyphosate Original plus Banvel plus Nonionic Surfactant Glyphosate Original plus 2,4-D plus Nonionic Surfactant

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

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2,4-D will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

**NOTE:** Refer to the specific product labels for crop rotation restrictions and precautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition

of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2,4-D, plus 0.5 to 1% nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

Cocklebur (12"), Xanthium strumarium

Kochia\* (6"), Kochia scoparia

Lambsquarters (12"), Chenopodium album

Lettuce, prickly (6"), Lactuca serriola

Marestail/Horseweed (6"), Conyza canadensis

Morningglory (6"), Ipomoea spp.

Pigweed, redroot (12"), Amaranthus retroflexus

Pigweed, smooth (12"), Amaranthus hybridus

Thistle, Russian (12"), Salsola kali

\*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D, plus 0.5 to 1% nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

Ragweed, common, Ambrosia artemisiifolia

Ragweed, giant, Ambrosia trifida

Smartweed, Pennsylvania, Polygonum pensylvanicum

Velvetleaf, Abutilon theophrasti

### HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1% nonionic surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOLUME BROADCAST APPLICATION" section.

### **WEED SPECIES**

Balsamapple\*, Momordica charantia

Bassia, fivehook, Bassia hyssopifolia

Brome, Bromus spp.

Fiddleneck, Amsinckia spp.

Fleabane, hairy, Conyza bonariensis

Fleabane, Erigeron spp.

Kochia, Kochia scoparia

Lettuce, prickly, Lactuca serriola

Panicum, Panicum spp.

Ragweed, common, Ambrosia artemisiifolia

Ragweed, giant, Ambrosia trifida

Smartweed, Pennsylvania, Polygonum pensylvanicum

Sowthistle, annual, Sonchus cleraceus

Sunflower, Helianthus annuus

Thistle, Russian, Salsola kali

Velvetleaf, Abutilon theophrasti

\*Apply with hand-held equipment only.

### **PERENNIAL WEEDS**

Apply this product as follows to control or destroy most perennial weeds:

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

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

The addition of 1 to 2% dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

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

Alfalfa, Medicago sativa

Alligatorweed\*, Alternanthera philoxeroides

Anise (fennel), Foeniculum vulgare

Artichoke, Jerusalem, Helianthus tuberosus

Bahiagrass, Paspalum notatum

Bentgrass, Agrostis spp.

Bermudagrass, Cynodon dactylon

Bermudagrass, water (knotgrass), Paspalum distichum

<sup>\*\*</sup>For control in no-till systems, use 16 fluid ounces per acre.

Bindweed, field, Convolvulus arvensis Bluegrass, Kentucky, Poa spp. Blueweed, Texas, Helianthus ciliaris Brackenfern, Pteridium aquilinum Bromegrass, smooth, Bromus inermis Bursage, woollyleaf, Franseria tomentosa Canarygrass, reed, Phalaris arundinacea Cattail, Typha spp.

Clover, red, Trifolium pratense

Clover, white, Trifolium repens

Cogongrass, Imperata cylindrica

Dallisgrass, Paspalum dilatatum

Dandelion, Taraxacum officinale

Dock, curly, Rumex crispus

Dogbane, hemp, Apocynum cannabinum

Fescues, Festuca spp.

Fescue, tall, Festuca arundinacea

Guineagrass, Panicum maximum

Horsenettle, Solanum carolinense

Horseradish, Armoracia rusticana

Ice plant, Mesembryanthemum crystallinum

Johnsongrass, Sorghum halepense

Kikuyugrass, Pennisetum clandestinum

Knapweed, Centaurea repens

Lantana, Lantana camara

Lespedeza, Lespedeza spp.

Milkweed, Asclepias spp.

Muhly, wirestem, Muhlenbergia frondonsa

Mullein, common, Verbascum thapsus

Napiergrass, Pennisetum purpureum

Nightshade, silverleaf, Solanum elaeagnifolium

Nutsedge; purple, yellow, Cyperus rotundus, Cyperus esculentus

Orchardgrass, Dactylis glomerata

Pampasgrass, Cortaderia spp.

Paragrass, Brachiaria mutica

Phragmites\*, Phragmites spp.

Poison hemlock, Conium maculatum

Quackgrass, Agropyron repens

Redvine\*, Brunnichia ovata

Reed, giant, Arundo donax

Ryegrass, perennial, Lolium perenne

Smartweed, swamp, Polygonum coccineum

Spurge, leafy\*, Euphorbia esula

Starthistle, yellow, Centaurea solstitalis

Sweet potato, wild\*, Ipomoea pandurata

Thistle, Canada, Cirsium arvense

Thistle, artichoke, Cynara cardunculus

Timothy, Phleum pratense

Torpedograss\*, Panicum repens

Trumpetcreeper\*, Campsis radicans

Vaseygrass, Paspalum urvillei

Velvetgrass, Holcus spp.

Wheatgrass, western, Agropyron smithii

\*Partial Control

This product is not registered in California for use on water bermudagrass. See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

**Alfalfa:** Apply 1 quart of this product per acre plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

**Alligatorweed:** Apply 4 quarts of this product per acre or apply a 1.5% solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

**Anise (Fennel)/Poison Hemlock:** Apply a 1 to 2% solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Bentgrass: For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1% nonionic

surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

**Bermudagrass:** For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

**Bermudagrass, Water (Knotgrass):** Apply 1.5 quarts of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

Fall applications only: Apply 1 quart of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

**Bindweed, Field:** For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

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. At these rates, apply using ground application only.

The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

**In California Only**, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions.

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

**Bluegrass, Kentucky/Bromegrass, Smooth/Orchardgrass:** Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (sods going to no-till corn) - Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1% nonionic surfactant by total spray volume 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.

**Blueweed, Texas:** Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

**Brackenfern:** Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5% solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Bursage, Woollyleaf:** For control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1% nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water 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/Timothy/Wheatgrass, Western: Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

**Cogongrass:** Apply 3 to 5 quarts of this product plus 0.5 to 1% nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

**Dandelion/Dock, Curly:** Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

**Dogbane, Hemp:** Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds 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. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1% nonionic surfactant by total spray volume 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, Tall:** Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only - Apply 1 quart of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

**Guineagrass:** Apply 3 quarts of this product per acre or use a 1% solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass/Ryegrass, Perennial: Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1% nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression) - Apply a 1% solution of this product plus 0.5 to 1% nonionic surfactant by total spray volume when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

**Kikuyugrass**: Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3 or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Knapweed/Horseradish:** Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds 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. Allow 7 or more days after application before tillage.

**Lantana:** Apply this product as a 1 to 1.25% solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

**Milkweed, Common:** Apply 3 quarts of this product per acre. Apply when actively growing and most of the milk-weed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

**Muhly, Wirestem:** Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop

areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. 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. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

**Nightshade, Silverleaf:** For control, apply 2 quarts of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60% of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

**Nutsedge; Purple, Yellow:** Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2% solution from hand-held equipment to control existing 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 which 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 of 1 to 2 quarts of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will 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 suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1% nonionic surfactant 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. Wait 7 days after treatment before tillage or mowing.

Pampasgrass/Ice Plant: Apply this product as a 1.5 to 2% solution using hand-held equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

**Phragmites:** For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2% solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1% solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or 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.

Quackgrass - In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

Quackgrass - Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

**Redvine:** For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1% nonionic surfactant by total volume. Apply in late September or early October to actively growing plants, which 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:** For control of giant reed, apply a 2% solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

**Smartweed, Swamp:** Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2,4-D plus 0.5 to 1% nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

**Spurge, Leafy:** For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2,4-D plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing. If mowing has occurred prior

to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

Starthistle, Yellow: Best results are obtained when applications are made during periods of active growth, including the rosette, bolting and early flower stages. For spray-to-wet applications, apply this product as a 2% solution. For broadcast applications, apply 2 quarts per acre in 10 to 40 gallons per acre of water carrier.

Sweet Potato, Wild/Thistle, Artichoke: Apply this product as a 2% solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before tillage.

Thistle, Canada: Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most 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. killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D per acre, plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application

Torpedograss: Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss 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. Allow 7 or more days after application before tillage.

**Trumpetcreeper:** For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which 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.

Other Perennials Listed On This Label: Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

### WOODY BRUSH AND TREES

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

Alder, Alnus spp.

Ash\*, Fraxinus spp.

Aspen, quaking, Populus tremuloides

Bearmat (Bearclover), Chamaebatia foliolosa

Beech, Fagus grandifolia

Birch, Betula spp.

Blackberry, Rubus spp.

Blackgum, Nyssa spp.

Bracken, Peridium spp.

Broom:

French, Cytisus monspessulanus, Scotch, Cytisus scoparius

Buckwheat, California\*, Eriogonum fasciculatum

Cascara\*, Rhamnus purshiana

Catsclaw\*, Acacia greggi

Ceanothus\*, Ceanothus spp.

Chamise, Adenostoma fasciculatum

Cherry:

Bitter, Prunus emarginata

Black, Prunus serotina, Pin, Prunus pensylvanica

Coyote brush, Baccharis consanguinea

Creeper, Virginia\*, Parthenocissus quinquefolia

Dewberry, Rubus trivialis

Dogwood\*, Cornus spp.

Elderberry, Sambucus spp.

Elm\*, Ulmus spp.

Eucalyptus, Eucalyptus spp.

Gorse, Ulex europaeus

Hasardia\*, Haplopappus squamosus

Hawthorn, Crataegus spp.

Hazel, Corylus spp.

Hickory\*, Carya spp.

Holly, Florida/Brazilian Peppertree\*, Schinus terebinthifolius

Honeysuckle, Lonicera spp.

Hornbeam, American\*, Carpinus caroliniana

Kudzu, Pueraria lobata

Locust, black\*, Robinia pseudoacacia

Madrone, Arbutus menziesii

Manzanita, Arctostaphylos spp.

Red\*\*, Acer rubrum, Sugar, Acer saccharum, Vine\*, Acer circinatum

Monkey Flower\*, Mimulus guttatus

Black\*, Quercus velutina, Northern Pin, Quercus palustris

Post, Quercus stellata, Red, Quercus rubra

Southern Red, Quercus falcata, White\*, Quercus alba

Persimmon\*, Diospyros spp.

Pine, Pinus spp.

Poison Ivy, Rhus radicans

Poison Oak, Rhus toxicodendron

Poplar, yellow\*, Liriodendron tulipifera

Raspberry, Rubus spp.

Redbud, eastern, Cercis canadensis

Rose, multiflora, Rosa multiflora

Russian-olive, Elaeagnus angustifolia

Sage; black, white.

Sagebrush, California, Artemisia californica

Salmonberry, Rubus spectabilis

Salt cedar, Tamarixs spp.

Sassafras, Sassafras aibidum

Sourwood, Oxydendrum arboreum

Poison\*, Rhus vernix, Smooth\*, Rhus glabra, Winged\*, Rhus copallina

Sweetgum, Liquidambar styraciflua

Swordfern\*, Polystichum munitum

Tallowtree, Chinese, Sapium sebiferum

Tan Oak. Lithocarpus densiflorus

Thimbleberry, Rubus parviflorus

Tobacco, tree\*, Nicotiana glauca Trumpetcreeper, Campsis radicans

Waxmyrtle, southern\*, Myrica cerifera

Willow, Salix spp.

Partial control

See below for control or partial control instructions.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of growth.

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

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

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

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

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Alder/Dewberry/Honeysuckle/Post Oak/Raspberry: For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5% solution with hand-held equipment.

Aspen, Quaking/Cherry: Bitter, Black, Pin/Hawthorn/Oak, Southern Red/Sweetgum/Trumpetcreeper: For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5% solution with handheld equipment.

Birch/Elderberry/Hazel/Salmonberry/Thimbleberry: For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1% solution with hand-held equipment.

**Blackberry:** For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1.5% solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a

3/4% solution of this product plus 0.5 to 1% nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

**Broom: French, Scotch:** For control, apply a 1.5 to 2% solution with handheld equipment.

Buckwheat, California/Hasardia/Monkey Flower/Tobacco, Tree: For partial control of these species, apply a 1 to 2% solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Catsclaw:** For partial control, apply as a 1 to 1.5% solution with hand-held equipment.

**Coyote Brush:** For control, apply a 1.5 to 2% solution with hand-held equipment when at least 50% of the new leaves are fully developed.

**Eucalyptus:** For control of eucalyptus resprouts, apply a 2% solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

**Kudzu:** For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2% solution with hand-held equipment. Repeat applications will be required to maintain control.

**Madrone Resprouts:** For suppression or partial control, apply a 2% solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

**Maple, Red:** For control, apply as a 1 to 1.5% solution with hand-held equipment when at least 50% of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Maple, Sugar/Oak, Northern Pin/Oak, Red: For control, apply as a 1 to 1.5% solution with hand-held equipment when at least 50% of the new leaves are fully developed.

Poison Ivy/Poison Oak: For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2% solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, Multiflora:** For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1% solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, Black/Sagebrush, California/Chamise/Tallowtree, Chinese: For control of these species, apply a 1% solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Tan Oak Resprouts:** For suppression or partial control, apply a 2% solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

**Willow:** For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1% solution with hand-held equipment.

Other Woody Brush and Trees Listed On This Label: For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2% solution with hand-held equipment.

### **NONCROP USES**

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TURFGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

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

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

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

# INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES", under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides, schools, storage areas, utility substations, other public areas and similar industrial or noncrop areas.

For specific rates of application and instructions for control of various

annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

# TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

**Glyphosate Original plus OUST** 

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

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

For control of annual weeds, use the lower rates of these products.

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

Bahiagrass, Paspalum notatum

Bermudagrass\*, Cynodon dactylon

Broomsedge, Andropogon virginicus

Dock, curly, Rumex crispus

Dogfennel, Eupatorium capilliforium

Fescue, tall, Festuca arundinacea

Johnsongrass\*\*, Sorghum halepense

Poorjoe\*\*, Diodia teres

Quackgrass, Agropyron repens

Trumpetcreeper\*, Campsis radicans

Vaseygrass, Paspalum urvillei

Vervain, blue, Verbena hastata

\*Suppression at the higher rates only.

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

### TANK MIXTURES NONCROP SITES

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

Glyphosate Original may be tank mixed with products such as: Krovar® I DF, Escort®, Telar®, Oust, Velpar®, Diuron 4L, Karmex® DF, Surflan®, Stomp®.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1% by volume of spray solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, precautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

### CONTROL OF EMERGED WEEDS

**NOTE:** For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates

**Annual Weeds:** Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

**Perennial Weeds:** For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds.

<sup>\*\*</sup>Control at the lower rates.

### PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

### **FARMSTEAD WEED CONTROL**

When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

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

### **FARM DITCHES**

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5% of the spray solution.

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

### CONSERVATION RESERVE PROGRAM (CRP ACRES)

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

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

CRP applications may be made with wiper applicators or conventional spray equipment

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

### DORMANT RANGELAND\*

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

Apply 8 to 16 ounces per acre of this product in the early spring when the weeds have greened up, but desirable grasses, such as crested and tall wheatgrass are still truly dormant.

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

Do not use additional surfactant or ammonium sulfate when spraying dormant rangeland grasses with Glyphosate Original.

\*In California, restrict applications to less than 10% of dormant range and acreage. Make spot treatments only.

### HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this label.

Habitat Restoration and Maintenance: When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots: This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

### ORNAMENTALS, TREE NURSERIES AND CHRISTMAS TREES

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

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

When applied as instructed for the conditions described for "NONCROP USES", this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas

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

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Site Preparation: Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

Greenhouse/Shadehouse Use: This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

Postdirected Spray: Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bark of established ornamental species.

Arborvitae, Thuja spp.

Azalea, Rhododendron spp.

Boxwood, Buxus spp.

Crabapple, Malus spp.

Euonymus, Euonymus spp.

Fir, Abies spp., Pseudotsuga spp.

Jojoba, Simmondsia chinensis

Hollies, *llex* spp.

Lilac, Syringa spp.

Magnolia, Magnolia spp.

Maple, Acer spp.

Oak, Quercus spp.

Privet, Ligustrum spp.

Pine, Pinus spp.

Spruce, Picea spp.

Yew, Taxus spp.

### SILVICULTURAL SITES AND RIGHTS-OF-WAY

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

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

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

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

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

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

### SITE PREPARATION

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

### POSTDIRECTED SPRAY

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

### **CONIFER RELEASE**

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

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

For release of the following conifer species:

Douglas fir, Pseudotsuga menziesii

Fir, Abies spp.

Hemlock, Tsuga spp.

Pines\*, Pinus spp.

Spruce, Picea spp.

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

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

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

For release of the following conifer species:

Loblolly pine, Pinus taeda

Eastern white pine, Pinus strobus

Slash pine, Pinus elliottii

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

Ash, Fraxinus spp.

Cherry:

Black, Prunus serotina, Pin, Prunus pensylvanica

Elm, Ulmus spp.

Hawthorn, Crataegus spp.

Locust, black, Robina pseudoacacia

Maple, red, Acer rubra

Oak:

Black, Quercus velutina, Post, Quercus stellata

Southern Red, Quercus falcata, White, Quercus alba

Persimmon, Diospyros spp.

Poplar, yellow, Liriodendron tulipfera

Sassafras, Sassafras albidum

Sourwood, Oxydendrum arboreum

Sumac

Poison, Rhus vernix, Smooth, Rhus glabra, Winged, Rhus copallina Sweetgum, Liquidambar styraciflua

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

# Glyphosate Original plus Oust Tank Mixtures for Conifer Release from Herbaceous Weeds

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

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly pines.

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

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre.

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

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

Bahiagrass, Paspalum notatum

Broomsedge, Andropogon virginicus

Dock, curly, Rumex crispus

Dogfennel, Eupatorium capilliforium

Fescue, tall, Festuca arundinacea

Johnsongrass\*, Sorghum halepense

Poorjoe\*, Diodia teres

Trumpetcreeper\*\*, Campsis radicans

Vaseygrass, Paspalum urvillei

Vervain, blue, Verbena hastata

\*Control at the higher rates.

\*\*Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease

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

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

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

### **CUT STUMP TREATMENTS**

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

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

Alder, Alnus spp.

Eucalyptus, Eucalyptus spp.

Madrone, Arbutus menziesii

Oak, Quercus spp.

Reed, giant, Arundo donax

Saltcedar, Tamarisk spp.

Sweetgum, Liquidambar styraciflua

Tan Oak, Lithocarpus densiflorus

Willow, Salix spp.

### INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100% concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

Oak, Quercus spp.

Poplar, Populus spp.

Sweetgum, Liquidambar styraciflua

Sycamore, Platanus occidentalis

This treatment WILL SUPPRESS the following woody species:

Black gum, Nyssa sylvatica

Dogwood, Cornus spp.

Hickory, Carya spp.

Maple, red, Acer rubrum

### TURFGRASSES AND GRASSES FOR SEED PRODUCTION PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas. For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

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

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

### **TURFGRASSES**

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

Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

### **GRASSES FOR SEED PRODUCTION**

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

# ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for Glyphosate Original alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of this product plus Oust in highly maintained turfgrass areas.

# RELEASE OF BERMUDAGRASS OR BAHIAGRASS

**NOTE:** Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

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

### **WEEDS CONTROLLED**

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1% nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic area, contact your Griffin sales representative.

# WEEDS CONTROLLED OR SUPPRESSED WITH GLYPHOSATE ORIGINAL ALONE\*

NOTE: C = Control S = Suppression

WEED SPECIES	Glypl	nosate	Origin	al FLU	ID OZ/	ACRE
	8	12	16	24	32	64
Barley, little,						
Hordeum pusilium	S	С	С	С	С	С
Bedstraw, catchweed						
Galium aparine	S	С	С	С	С	С
Bluegrass, annual						
Poa annua	S	С	С	С	С	С
Chervil						
Chaerophyllum tainturieri	S	С	С	С	С	С
Chickweed, common						
Stellaria media	S	С	С	С	С	С
Clover, crimson						
Trifolium incarnatum	•	S	S	С	С	С
Clover, large hop						
	•	S	S	С	С	С
Fescue, tall						
Festuca arundinaceae	•	•	•	•	S	S
Geranium, Carolina						
Geranium carolinianum	•	•	S	S	С	С
Henbit						
Lamium amplexicaule	•	S	С	С	С	С
Ryegrass talian						
Lolium multiflorum	•	•	S	С	С	С
Speedwell, corn						
Veronica arvensis	S	С	С	С	С	С
Vetch, common						
Vicia sativa	•	•	S	С	С	<u>C</u>
Chervil Chaerophyllum tainturieri Chickweed, common Stellaria media Clover, crimson Trifolium incarnatum Clover, large hop Trifolium campestre Fescue, tall Festuca arundinaceae Geranium, Carolina Geranium carolinianum Henbit Lamium amplexicaule Ryegrass talian Lolium multiflorum Speedwell, corn Veronica arvensis Vetch, common	s s	C	C	C C C C C C C	C C C C C C C	C C C C C C

<sup>\*</sup> These rates apply only to sites where an established competitive turf is present.

# WEEDS CONTROLLED OR SUPPRESSED WITH GLYPHOSATE ORIGINAL PLUS OUST\*

NOTE O O	0 0	_						
NOTE: C = Control	S = Suppression	n						
Glyphosate Original								
WEED SPECIES	Glyphosate	8	12	12	16	16	12	16
	Original	+	+	+	+	+	+	+
	(FL. OZ/A)	1/4	1/4	1/2	1/4	1/2	1	1
	+ OUST (OZ/A)							
Barley, little								
Hordeum pusilium		С	С	С	С	С	С	С
Bedstraw, catchwee	ed							
Galium aparine		С	С	С	С	С	С	С
Bluegrass, annual								
Poa annua		S	С	С	С	С	С	С
Chervil								
Chaerophyllum taintu	ırieri	С	С	С	С	С	С	С
Chickweed, commo	n							
Stellaria media		S	С	С	С	С	С	С
Clover, crimson								
Trifolium incarnatum		S	S	S	S	С	С	С
Clover, large hop								
Trifolium campestre		•	•	S	S	S	С	С
Fescue, tall								
Festuca arundinacea	е	•	•	•	•	•	S	S
Geranium, Carolina								
Geranium carolinianu	ım	•	S	S	С	С	С	С
Henbit								
Lamium amplexicaule	9	•	S	С	С	С	С	С
Ryegrass, Italian								
Lolium multiflorum		•	S	S	С	С	С	С
Speedwell, corn								
Veronica arvensis		S	С	С	С	С	С	С
Vetch, common								
Vicia sativa		С	С	С	С	С	С	С
					-			

<sup>\*</sup> These rates or mixtures of rates apply only to sites where an established competitive turf is present.

# RELEASE OF ACTIVELY GROWING BERMUDAGRASS

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

For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth.

Bahiagrass, Paspalum notatum

Bluestem, silver, Andropogon saccharoides

Fescue, tall, Festuca arundinacea

Johnsongrass\*, Sorghum halepense

Trumpetcreeper\*\*, Campsis radicans

Vaseygrass, Paspalum urvillei

\*Control at the higher rates.

\*\*Suppression at higher rates only.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass, Paspalum notatum

Bluestem, silver, Andropogon saccharoides

Broomsedge, Andropogon virginicus

Dock, curly, Rumex crispus

Dogfennel, Eupatorium capilliforium

Fescue, tall, Festuca arundinacea

Johnsongrass\*, Sorghum halepense

Poorjoe\*\*, Diodia teres

Trumpetcreeper\*\*, Campsis radicans

Vaseygrass, Paspalum urvillei

Vervin, blue, Verbena hastata

\*Control at higher rates only.

\*\*Suppression at the higher rates.

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

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

# COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turf on roadside rights-of-way or other industrial areas. Do not use on high-quality turf or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

### Tall Fescue Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turfgrasses. Allow turf to recover from stress caused by heat, drought or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

### ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

### **TANK MIXTURES**

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

### TANK MIXTURES PLUS 2,4-D AMINE

For additional weed control benefits, up to 1 pound a.i. per acre of 2,4-D amine may be added to the following tank mixtures. Consult the label for 2,4-D amine for weeds controlled.

### **TALL FESCUE**

### Glyphosate Original plus Telar

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 ounce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression. Make only one of the above applications per growing season.

### **Glyphosate Original plus Oust**

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

### **Glyphosate Original plus Escort**

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to ½ ounce of Escort per acre.

NOTE: This product is not registered for use with Escort in California.

### **SMOOTH BROME**

### **Glyphosate Original plus Oust**

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

# BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1% nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than two sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1% nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using this product plus Oust for suppression of bahiagrass, make only one application per year.

### **CROPPING SYSTEMS**

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

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

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

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

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

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per

The maximum use rates stated throughout this product 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.

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

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

Tomato\*\*\*†

### **ROW CROPS** Corn (All)\*

Corn (All)*	Sorghum (Milo)*	Soybeans*
Cotton*	Peanuts	Sugarcane*
CEREAL GRAINS		
Barley*	Oats*	Triticale*
Buckwheat*	Rice**	Wheat (All)*
Millet (Pearl, Proso)*	Rye*	Wild Rice*

### **CITRUS**

Calamondin	Mandarin Orange
Chironja	Orange (All)
Citron	Pummelo
Grapefruit	Tangelo
Kumquat	Tangerine
Lemon	Tangors
Lime	

### TREE NUTS

Almona	Chesthut	Macadamia
Beechnut	Chinquapin	Pecan
Brazil Nut	Filbert (Hazelnut)	Pistachio
Butternut	Hickory Nut	Walnut (Black, English)
Cashew		

### **VINE CROPS**

Grapes Kiwi Fruit

### TREE FRUITS

Apple	Mayhaw	Pear
Apricots	Nectarine	Plum/Prune (All)
Cherry (Sweet, Sour)	Olive	Quince
Loguat	Peach	

Chard, Swiss

<u> 'EGETABLES</u>		
Artichoke,	Cucumber***	Parsley
Jerusalem	Eggplant***	Parsnips
Asparagus*	Endive	Peas (All)
Beans (All)	Garlic***	Pepper (All)***
Beet Greens	Gourds***	Persian Melon***
Beets (Red, Sugar)	Ground Cherry***	Potato (lirish, Sweet)
Broccoli (All)	Honeydew Melon***	Pumpkin***
Brussels Sprouts	Honey Ball Melon***	Radish
Cabbage (All)	Horseradish	Rape Greens
Cabbage, Chinese	Kale	Rhubarb
Cantaloupe***	Kohlrabi	Rutabaga
Carrot	Leek	Shallot
Cauliflower	Lentils	Spinach (All)
Casaba Melon***	Lettuce	Squash (Summer,
Celeriac	Mango Melon***	Winter)***
Celery	Melons (All)***	Tomatillo***

Muskmelon\*\*\*

Chicory **Mustard Greens** Turnip Collards Watercress\*\*\* Okra Crenshaw Melon\*\*\* Onion Watermelon\*\*\* Yams

### SMALL FRUITS AND BERRIES

Blackberry	Currant	Huckleberry
Blueberry	Dewberry	Loganberry
Boysenberry	Elderberry	Olallieberry
Cranberry	Gooseberry	Raspberry (Black, Red)

### FORAGE CROPS AND LEGUMES

Alfalfa*	Forage Grasses*	Forage Legumes*

### **TROPICAL CROPS**

Acerola	Figs	Persimmons
Atemoya	Genip	Pineapple****
Avocado	Guava	Pomegranate
Banana (Plantains)	Jaboticaba	Sapodilla
Breadfruit	Jackfruit	Sapote (Black,
Canistel	Longan	Mamey, White)
Carambola	Lychee	Soursop
Cherimoya	Mango	Sugar Apple
Cocoa Beans	Papaya	Tamarind
Coffee	Passion Fruit	Tea
Datas		

### Dates

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

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product, 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 irrigation system. Applications made at emergence will result in injury or death to emerged seedlings.

**Spot Treatment** (Only those crops with "\*" can be spot treated.): Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or boll opening

For forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

**NOTE**: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10% OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment: This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

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

Allow at least the following time intervals between application and harvest:

Atemoya, Avocado, Breadfruit, Canistel,

Carambola, Cherry, Grapes, Dates, Jaboticaba, Jackfruit, Longan, Lychee, Passion, Fruit, Persimmons, Rutabagas,

Sapodilla, Sapote, Soursop, Sugar Apple, Tamarind . . . . . . . 14 days 

Sorghum (milo) 1,2......40 days <sup>1</sup> Do not use roller applicators.

<sup>&</sup>lt;sup>2</sup> Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

### **ASPARAGUS**

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus.

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

**Prior to Crop Emergence:** Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

**Spot Treatment:** Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10% of the total field area to be harvested. Do not harvest within 5 days of treatment.

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

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

### BERRIES AND SMALL FRUITS

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

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

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

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

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

For Wick or other Wiper Applicators: Mix 1 gallon of this product in 4 gallons of water to prepare a 20% solution.

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

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

### CORN

**Hooded Sprayers:** This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 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 into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows. Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 1 quart of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 mph.
- Maximum wind speed: 10 mph.
- Use low-drift nozzles.

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

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

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weed Control Section" of this label. Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

### FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE ADDITIONAL INSTRUCTIONS AT THE END OF THIS LABEL. Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

### TANK MIXTURES

Glyphosate Original plus Banvel plus Nonionic Surfactant Glyphosate Original plus 2,4-D plus Nonionic Surfactant Glyphosate Original plus Goal™ plus Nonionic Surfactant

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

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

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

### Glyphosate Original plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to 1% nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

Barnyardgrass

# Glyphosate Original 12 fluid oz/acre Wheat 18" \*

Barley	12"	Rye	6"
Bluegrass, annual	6"		
Glyphosate Origin	nal 16 fluid oz/acre		
Annual grasses abo	ove plus:		
Ryegrass, annual	6"	Crabgrass	12"
Chickweed	6"	Johnsongrass, seedling	12"
Groundsel	6"	Lambsquarters	12"
Marestail	6"	Oats, wild	12"
Rocket, London	6"	Pigweed, redroot	12"
Shenherdsnurse	6"	Mustards	12"

**NOTE:** Use 32 fluid ounces of this product per acre where heavy weed densities exist.

Glyphosate Original 12 fluid oz/acre		Glyphosate Original 16 fluid oz/acre +		
Goal** 2 to 4 fluid oz/acre		Goal** 2 to 4 fluid oz/acre		
Annual grasses above plus:		Annual weeds above plus:		
Cheeseweed, common	3"	Cheeseweed, common	6"	
Chickweed	3"	Groundsel	6"	
Groundsel	3"	Chickweed	12"	
Rocket, London	6"	Rocket, London	12"	
Shepherdspurse 6"		Shepherdspurse	12"	

**NOTE:** Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.

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

### ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

<sup>\*</sup>Maximum height or length in inches.

<sup>\*\*</sup> Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

Glyphosate Original may be tank mixed for the control of emerged annual weeds before planting with registered ECOFARMING SYSTEM products.

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

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

Brome, downy, Bromus tectorum

Cheat, Bromus secalinus

Foxtail, green, Setaria viridis

Foxtail, yellow, Setaria lutescens

Kochia\*, Kochia scoparia

Lettuce, prickly, Lactuca serriola

Pigweed, redroot, Amaranthus retroflexus

Thistle, Russian, Salsola kali

Wheat, volunteer, Triticum aestivum

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

Risk of crop injury from 2,4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and precautionary statements for all products used in these tank mixtures.

### **AID TO TILLAGE**

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in reduced performance.

# POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression. Use 0.5% nonionic surfactant in 3 to 10 gallons of spray solution per acre.

### **PASTURES**

Apply this product prior to planting forage grasses and legumes.

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

**Spot Treatment -** When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

**Wiper Application -** When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

### SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

**NOTE:** Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

**Broadcast Treatment -** Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

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

For removal of last stubble or ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

**Spot Treatment in or Around Sugarcane Fields -** For dilution and rates of application using hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

For control of volunteer or diseased sugarcane, make a 1% solution of this product in water and spray to wet the foliage of vegetation to be controlled.

**NOTE:** When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

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

Do not feed or graze treated sugarcane forage following application.

# CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS TANK MIXTURES

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

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

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1% by volume of spray solution. The addition of 1 to 2% dry ammonium sulfate by weight may increase the performance of this product.

**NOTE:** When using these tank mixtures, do not exceed 4 quarts of this product per acre.

### CORN

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

Atrazine Fultime® Prowl
Balance® Guardeman® Simazine
Basis® Lariat Surpass
Bicep II Magnum Lasso/Alachlor Surpass 100
Bullet Leadoff® TopNotch

Dual II Magnum Micro-Tech Epic® Partner¹

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

<sup>1</sup> Partner herbicide is not registered in California.

### **SOYBEANS**

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

Turbo Canopy Linuron Command Pursuit Scepter Dual Partner Sencor Gemini Lorox DF Squadron Lasso/Alachlor Preview Pursuit Plus Lexone Prowl Micro-Tech

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

2,4-DB 2,4-D\*

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

### CORN AND SOYBEANS

**Annual Weeds** - For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For

a complete list of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

**Perennial Weeds -** At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

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

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

### PREHARVEST APPLICATIONS

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

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

This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions for ground and aerial applications.

**NOTE:** Do not apply to crops grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain sorghum (Milo) is not registered in California.

### SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment. Do not graze or harvest treated crop for livestock feed within 25 days of last preharvest application.

DO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

### COTTON

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

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for preharvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with DEF 6, Folex, or Prep to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of cotton.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Do not feed or graze treated cotton forage or hay following preharvest applications.

### **GRAIN SORGHUM (MILO)**

Make applications at 30% grain moisture or less and at least 7 days prior to harvest.

Apply up to 2 quarts of this product per acre.

### WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

### TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops

listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

**NOTE:** Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

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

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

For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow.

### MIDDLES MANAGEMENT

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

For citrus crops, treat uniformly between trees.

# Glyphosate Original Glyphosate Original Plus Goal

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

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1% nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

MAXIMUM	RATE P	RATE PER ACRE		
HEIGHT/ DIAMETER (INCHES)	Glyphosate Original (Fluid Ounces)	Goal (Fluid Ounces)		
6	8	-		
_				
6	12	-		
_				
6	16	or		
	16 to 32	+ 4 to 16**		
_				
on				
_				
_				
3	12 to 32	+ 4 to 16		
	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	HEIGHT/ DIAMETER (INCHES) (Fluid Ounces)  6 8  6 12  6 16  16 to 32		

WEED SPECIES	MAXIMUM	RATE PER ACRE		
	HEIGHT/ DIAMETER (INCHES)	Glyphosate Original (Fluid Ounces)		Goal (Fluid Ounces)
Cheeseweed, common Malva spp.	6 	16 to 32	+	4 to 16
Filaree* Erodium spp.				
Horseweed/Marestail Conyza canadensis				
Nettle, stinging Urtica dioica				
Purslane, common* Portulace oleracea				

<sup>\*</sup>Suppression only.

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

### **STRIPS**

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

### TANK MIXTURES WITH RESIDUAL HERBICIDES

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

### **Glyphosate Original plus:**

Goal 2XL, Karmex DF, Krovar® I, Simazine, Princep Caliber 90, Simazine 4L, Simazine 80W, Solicam 80DF, Surflan AS, Simazine (80W, or 4L, or Princep Caliber 90) plus Surflan AS, Goal 2XL plus Surflan AS plus Simazine (80W, or 4L, or Princep Caliber 90), Goal 2XL plus Surflan AS, Goal 2XL plus Simazine (80W, 4L or Princep Caliber 90)

Do not apply these tank mixtures in Puerto Rico.

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

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

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

### **RECOMMENDED RATES**

**Annual Weeds -** Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

**Perennial Weeds** - Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and application rates for specific perennial weeds.

### Glyphosate Original Plus Goal Plus Simazine/Surflan

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

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

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1% nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild, Hordeum leporinum

Bluegrass, annual, Poa annua

Cheeseweed, common, Malva spp.

Chickweed, common, Stellaria media

Filaree\*, Erodium spp.

Fleabane, hairy, Conyza bonariensis

Groundsel, common, Senecio vulgaris

Horseweed/Marestail, Conyza canadensis

Nettle, stinging, Urtica dioica

Pineappleweed, Matricaria matricariodes

Rocket, London, Sisymbrium irio

Shepherdspurse, Capsella bursa-pastoris

Sowthistle, annual, Sonchus oleraceus

\*Use a minimum of 1.5 quarts of this product in these mixtures.

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

# PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

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

### **Bahiagrass**

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than two sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

### Bermudagrass

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression Only (East of the Rocky Mountains) - Apply 6 to 16 fluid ounces of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression Only (West of the Rocky Mountains) - Apply 16 fluid ounces of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

### **Cool Season Grass Covers**

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2% by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1% nonionic surfactant. Do not add ammonium sulfate.

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

# LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1% nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

### **Annual Weeds**

Goatweed - Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.5 to 1% nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches tall, the addition of Kovar or Karmex may improve control. Use labeled rates for these residual products

Read and carefully observe the label claims, precautionary statements, rates and all other information on the Kovar and Karmex labels.

### PERENNIAL WEEDS

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

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

I C - I altial control		C = C0i	IIIOI	
WEED SPECIES Glyph	Glyphosate Original RATE PER ACRE			
	1 qt	2 qts	3 qts	5 qts
Bermudagrass	В	•	PC	С
Guineagrass				
Texas and Florida Ridge	В	С	С	С
Florida Flatwoods	•	В	С	С
Paragrass	В	С	С	С
Torpedograss	S	•	PC	С

### TREE CROPS

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

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

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

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

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

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

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

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

**Tropical Fruit**: acerola\*, atemoya\*, avocado\*, banana (plantains)\*\*\*\*\*, breadfruit\*, canistel\*, carambola\*, cherimoya\*, cocoa beans\*, coffee\*\*\*\*, dates\*, figs\*, genip\*, guava\*\*\*\*\*, jaboticaba\*, jackfruit\*, longan\*, lychee\*, mango\*, mayhaw\*, papaya\*\*\*\*\*, passion fruit\*, persimmons\*, pomegranate\*, sapodilla\*, sapote\*, soursop\*, sugar apple\*, tamarind\*, tea\*. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

### NOTE:

- \* Allow a minimum of 14 days between last application and harvest.
- \*\* Allow a minimum of 3 days between last application and harvest.
- \*\*\* Allow a minimum of 17 days between last application and harvest.
- \*\*\*\* Allow a minimum of 28 days between last application and harvest.
- \*\*\*\*\* Allow a minimum of 1 day between last application and harvest.

### VINE CROPS

### Kiwi Fruit

**Grapes:** Any variety of table, wine or raisin grape may be treated with any equipment listed in this section.

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

Allow a minimum of 14 days between last application and harvest.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

# FOR COTTON WITH THE "ROUNDUP READY", GENE IN-CROP APPLICATIONS

### **General Information**

GRIFFIN RECOMMENDS THIS PRODUCT FOR USE ONLY OVER-THE-TOP OF OR DIRECTED ONTO IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS COTTON WITH THE "ROUNDUP READY" GENE. SEVERE INJURY OR DEATH OF COTTON WILL RESULT IF ANY COTTON VARIETIES NOT PROPERLY DESIGNATED AS HAVING THE "ROUNDUP READY" GENE ARE SPRAYED WITH THIS PRODUCT. AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS AND TREES OTHER THAN CROPS WITH THE "ROUNDUP READY" GENE, SINCE SEVERE INJURY OR DESTRUCTIONS WILL RESULT.

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

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

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

### **Application Instructions**

This product will control many troublesome weeds with over-the-top, post-directed, hooded sprayer, or preharvest applications in Roundup Ready cotton

Maximum Allowable Yearly Rates

- 1. Combined total per year for all applications: 8 quarts/A
- 2. Preplant, Preemergence applications: 5 quarts/A
- 3. Total in-crop applications from cracking to layby: 4 quarts/A
- 4. Maximum preharvest application rate: 2 quarts/A

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

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

Do not exceed a maximum rate of 1 quart per acre of this product when making applications by air, unless otherwise directed.

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 Spray Drift Management section of this label for instructions.

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

**Sprayer Preparation:** It is important that sprayer and mixing equipment be cleaned and free of pesticide residue before making applications of this product to "Roundup Ready" cotton. Follow the cleaning procedures specified on the label of the product(s) previously used. Cotton is very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

Over-the-Top Applications: This product may be applied by aerial or ground application equipment postemergence to "Roundup Ready" cotton from the ground cracking stage until the four leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Overthe-top applications made after the four leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss. Any single overthe-top broadcast application should not exceed 1 quart per acre. No more than two over-the-top broadcast applications may be made from crop emergence through the four leaf (node) stage of development. Sequential over-the-top applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.

**NOTE:** Always plant into a weed free seedbed. In no-till and stale seedbed systems, always burn down existing weeds before cotton emerges. Apply a preplant burndown treatment of 16 to 48 fluid ounces per acre of this product.

Post-Directed or Hooded Applications: This product may be applied using precision post-directed or hooded sprayers to "Roundup Ready" cotton through layby. At this stage, post-directed equipment should be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves should be avoided to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 PSI). For best results, make applications while weeds are small (less than 3 inches). Any single post-directed application should not exceed 1 quart per acre of this product. No more than two applications should be made from the fifth leaf through layby. Sequential in-crop applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.

**Salvage Treatment:** This treatment may be used after the four leaf stage of development and should only be used where weeds threaten to cause the loss of the crop. One quart per acre may be applied either as an over-

the-top applications or as a post-directed treatments sprayed higher on the cotton plants and over the weeds. NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT SHOULD BE USED PER GROWING SEASON.

Preharvest Application: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to "Roundup Ready" cotton after 20% boll crack. For application rates please see the "WEEDS CONTROLLED" section of this label. This product may be applied using either aerial or ground spray equipment. Aerial and ground applications may be made up to a maximum of 2 quarts per acre. Allow a applications may be made up to a maximum of 2 quarts per acte. Anow a minimum of 7 days between final application and harvest of cotton or feeding of cotton forage or hay. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION OF GLYPHOSATE ORIGINAL TO "ROUNDUP READY" COTTON IS PROHIBITED. **NOTE:** Glyphosate Original will not enhance the performance of harvest aids when applied to "Roundup Ready" cotton. DO NOT APPLY GLYPHOSATE ORIGINAL PREHARVEST TO CROPS GROWN FOR SEED.

Weeds Controlled: For specific rates of application and instructions for control of various annual and perennial weeds, refer to "WEEDS CONTROLLED" section of this label. Glyphosate Original applied at 1 quart per acre will burndown or suppress the growth of the following perennial weeds and reduce crop competition: yellow and purple nutsedge, rhizome johnsongrass, common bermudagrass, silverleaf nightshade, trumpet creeper, and redvine. Fall preharvest applications may be required for control of these perennial weeds.

### TANK MIXTURES

### Glyphosate Original plus Staple® (Glyphosate Tolerant Cotton)

A tank mixture of Staple at 0.6 ounces per acre plus Glyphosate Original at 24 ounces per acre may be applied as an early postemergence treatment in glyphosate tolerant cotton, such as "Roundup Ready" cotton, for improved control of hemp sesbania, morningglory (entireleaf, ivyleaf, pitted, scarlet/red), prickly sida and palmer pigweed. The addition of Staple to a "Roundup Ready" program will provide residential control of prickly sida, pigweed, spotted spurge, velvetleaf and spurred anoda. Rainfall (0.5-1 inch) following the postemergence application is required for residual control.

Glyphosate Original plus Staple may be applied postemergence to glyphosate tolerant cotton, such as "Roundup Ready" cotton, through the fourth true leaf stage of growth (when fifth true leaf is the size of a quarter

Refer to the label for further-application information and use restrictions. Follow the label guidelines that are the most restrictive.

NOTE: No antagonism has been observed to annual grass species from this tank mixture.

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

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

### FOR POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE "ROUNDUP READY" GENE (EXCEPT CALIFORNIA)

General Information

GRIFFIN RECOMMENDS USE OF THIS PRODUCT FOR POSTEMERGENCE APPLICATION ONLY ON SOYBEAN VARIETIES DESIGNATED AS CONTAINING THE "ROUNDUP READY" GENE. APPLYING THIS PRODUCT TO SOYBEAN VARIETIES WHICH ARE NOT DESIGNATED AS "ROUNDUP READY" WILL RESULT IN SEVERE CROP INJURY AND YIELD LOSS. AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS WHICH DO NOT CONTAIN THE "ROUNDUP READY" GENE, SINCE SEVERE

INJURY OR DESTRUCTION WILL RESULT.

THE "ROUNDUP READY" DESIGNATION INDICATES THAT THE SOYBEAN CONTAINS A PATENTED GENE WHICH PROVIDES TOLERANCE TO THIS HERBICIDE. INFORMATION ON "ROUNDUP READY" SOYBEANS MAY BE OBTAINED FROM YOUR SEED SUPPLIER.

### **Application Instructions**

This product may be applied postemergence to "Roundup Ready" soybeans from the cracking stage throughout flowering. Allow a minimum of 14 days between final application and harvests or feeding of soybean grain, forage or hav.

Maximum Allowable Yearly Rates

- 1. Cropping Season: Combined total per year for all applications may not exceed 8 quarts per acre.
- 2. Preplant, preemergence: Maximum amount of this product which can be applied to crop emergence is 5 quarts per acre.
- 3. In-crop: Maximum combined total of single or multiple in-crop applications from cracking throughout the flowering stage is 3 quarts (96 fluid ounces) per acre.

4. Preharvest: Maximum amount of this product that can be applied after

loss of green color in soybean pods until 14 days before harvest is 1 quart (32 fluid ounces) per acre.

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

For Ground Applications: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use nozzles which provide a flat fan pattern. Check for even distribution of spray droplets.

For Aerial Applications: Use the recommended rates of this product in 3 to 15 gallons of spray solution per acre. Do not exceed 1 guart of this product per acre unless otherwise directed.

Precautions/Restrictions: The combined total application from crop emergence through harvest must not exceed 3 quarts (96 fluid ounces) per acre. The maximum rate for any single in crop application is 2 quarts (64 fluid ounces) per acre. The maximum combined total of this product which can be applied during flowering is 2 quarts (64 fluid ounces) per acre. Allow a minimum of 14 days between final application and harvest or feeding of soybean grain, forage or hay.

There are no rotational crop restrictions following applications of this product. Extreme care must be used when applying this product to prevent injury to desirable plants and crops which do not contain the "Roundup

The following rate recommendations will provide control of labeled grasses and broadleaf weeds in conventional and no-till soybean production systems. Refer to the weed control sections of the label for rate récommendations for specific annual weeds.

This product may be used up to 64 fluid ounces per acre in any single application for control of annual weeds, where heavy weed densities exist.

NOTE: The following recommendations are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burndown treatment of 16 to 64 fluid ounces per acre of this product can be used to control existing weeds prior to crop emergence.

### MIDWEST/MIDATLANTIC RECOMMENDATIONS

Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 4 to 8 inches weeds is recommended. Weeds will generally be 4 to 8 inches tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8 to 18 inches tall, use 48 fluid ounces per acre for best results.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 24 to 32 fluid ounces per acre may be necessary to control late flushes of weeds.

Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 4 to 8 inch weeds is recommended. Weeds will generally be 4 to 8 inches tall 3 to 5 weeks after planting. If new flushes of weeds occur, they can be controlled by sequential applications of this product.

### Initial and Sequential (if needed)

### **Applications**

Weed Height (inches)	Rate (fl oz/A)
1-3	24
4-8	32
8-18	48

Giant ragweed: Apply 32 fluid ounces per acre when the weed is 8 to 12 inches tall to avoid the need for sequential application.

Black nightshade, Pennsylvania smartweed, velvetleaf, and waterhemp: Apply 32 fluid ounces per acre to weeds 3 to 6 inches tall and 48 fluid ounces per acre when weeds are up to 12 inches tall. For morningglory species, apply 32 fluid ounces per acre when weeds are up to 4 inches tall, and 48 fluid ounces per acre when weeds are up to 6 inches tall.

Some weeds, such as black nightshade, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 24 fluid ounces of this product per acre for sequential applications.

### SOUTHEAST RECOMMENDATIONS

Narrow row, drilled, or wide-row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 3 to 6 inch weeds is recommended. Weeds will generally be 3 to 6 inches tall 2 to 3 weeks after planting.

### **Initial Treatment**

Weed Height (inches)	Rate (fl oz/A)
3-6	32
6-12	48

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

### Sequential Application (if needed)

Weed Height (inches)	Rate (fl oz/A)
2-3	16
3-6	24
6-12	32

Florida pusley, hemp sesbania and spurred anoda: Apply 32 fluid ounces per acre to weeds 2 to 4 inches for the initial application. Apply 32 fluid ounces per acre when these weeds are 3 to 6 inches tall if a sequential application is necessary.

Morningglory, black nightshade, groundcherry, and Pennsylvania smartweed: Apply 24 fluid ounces per acre on 1 to 3 inch weeds, 32 fluid ounces per acre on 3 to 6 inch weeds, or 48 fluid ounces per acre on 6 to 12 inch weeds for the initial application.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

### **DELTA/MIDSOUTH RECOMMENDATIONS**

Narrow row, drilled, or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 2 to 4 inch weeds is recommended. Weeds will generally be 2 to 4 inches tall 2 to 3 weeks after planting.

### **Initial Treatment**

Weed Height (inches)	Rate (fl oz/A)
2-4	32
5-12	48
Sequential Application	
Weed Height (inches)	Rate (fl oz/A)
2-3	16
3-6	24
6-12	32

Hemp sesbania and spurred anoda: Apply a sequential treatment of 32 fluid ounces per acre on 3 to 6 inch weeds if necessary.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications.

### PERENNIAL WEEDS RATE RECOMMENDATIONS

A 32 to 64 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly.

For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with Glyphosate Original herbicide. For additional information on perennial weeds, see the "WEEDS CONTROLLED" section of this label. For some perennial species, repeat applications may be required to eliminate crop competition throughout the growing season.

Griffin will not warrant crop safety or weed control when "Roundup Ready" soybeans are treated with herbicides not specified on this label. Because of the potential for; 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions, herbicides not specified on this label should not be used, whether applied preemergence or applied postemergence as a tank mixture with Glyphosate Original herbicide.

**NOTE:** Tank mixes with nonionic surfactants which are labeled for use with postemergence herbicides may be used. When using additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70% active ingredient or a 1% surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70% active ingredient.

The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture. Read and carefully observe precautionary statements and other information appearing on the surfactant label.

### SPRAYER PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using Glyphosate Original. Follow the cleanup procedures specified on the label of the product(s) previously used. If no cleanup procedure is provided, follow this cleanout procedure for all application equipment before using Glyphosate Original:

- 1. Thoroughly rinse sprayer, tanks, boom and hoses with clean water.
- 2. Partially fill tank with water and add ammonia (1 gallon of ammonia per 100 gallons of tank volume) or a tank cleaner. Complete filling the tank and flush the cleaning solution through the boom hoses. Let solution stand for 15 minutes while agitating/recirculating, and then drain the tank by flushing the hoses, booms and nozzles.
- 3. Thoroughly rinse the sprayer, tanks, boom and hoses with clean water.
- 4. Follow label directions on product(s) previously sprayed for disposal.

Remove cap from container. Remove water soluble powder packet and place into the necessary volume of water (see Spray Equipment-Volumes) in the spray tank with the agitator running. Do not attempt to open or divide the contents of the water soluble packet. Do not tip or invert the bottle to remove the water soluble packet. Doing so could dump the insert into the spray tank and spill the liquid. Remove insert from bottle, rinse thoroughly and discard. Pour the entire contents of the bottle containing the soluble liquid into spray tank. Continuous agitation is required for a uniform suspension and application.

**PRECAUTION:** Do not use chlorine bleach with ammonia. See Sprayer Cleanup Section for more information.

### SPRAYER CLEANUP

Spray equipment must be clean and free of previous pesticide deposits before applying. Using the cleanup procedures specified on the label of the previously used products, clean all application equipment before applying. If no cleanup procedure is provided, use the procedure that follows. Immediately following applications thoroughly clean all mixing and spray equipment according to the following instructions.

- Drain Tank: Thoroughly hose down the interior surfaces of the tank; the flush tank, boom and hoses with clean water for a minimum of 5 minutes. Loosen and physically remove any visible deposits.
- 2. Fill the tank with clean water and add 1 gallon of household ammonia\* (3% active) for every 100 gallons of water. Flush the cleaning solution through the boom, hoses and nozzles.. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 minutes. Again, flush the boom, hoses and nozzles with the cleaning solution, then drain the tank.
- Remove the nozzle and screens and clean separately in a bucket containing the cleaning agent and water.
- 4. Repeat step 2.
- 5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing the water through the hoses and boom.
- 6. Dispose of the rinsate on site or at an approved waste disposal facility. \*Equivalent amounts of an alternate-strength ammonia solution or approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaning instruction.

### **PRECAUTION**

Do not use chlorine bleach with ammonia when cleaning out spray tanks. All traces of liquid fertilizer containing ammonia, ammonia nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding any chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odor which can cause eye, nose, throat, and lung irritation.

Do not clean equipment in an enclosed area.

### SPRAY DRIFT MANAGEMENT

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

### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (greater than 150 to 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. 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 below.

# CONTROLLING DROPLET SIZE GENERAL TECHNIQUES

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Use the lower spray pressures recommended for the nozzle.
   Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use a higher-capacity nozzle instead of increasing pressure.
- 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.

### **AIRCRAFT**

- Number of Nozzles Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

### **BOOM LENGTH AND HEIGHT**

- Boom Length (Aircraft) The boom length should not exceed ¾ of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.
- Boom Height (Aircraft) Application more than 10 feet above the canopy increases the potential for spray drift.
- Boom Height (Ground) -Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

### WIND

Drift potential at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they effect spray drift.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

### SURFACE TEMPERATURE INVERSION

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature 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 a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift, and not interfering with uniform deposition of the product.

# FOR AERIAL APPLICATION IN ARKANSAS ONLY

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

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

Applications should typically be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

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

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

Do not apply this product when winds are in excess of 10 miles per hour. Do not apply when there is a low-level inversion where fine spray particles

could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 mph.

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

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

# FOR AERIAL APPLICATIONS IN CALIFORNIA ONLY

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

- In fallow and reduce tillage systems prior to the emergence or transplanting of labeled crops.
- In cotton, prior to harvest. Refer to the cotton instructions section for specific harvest application instructions.

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

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

DO NOT EXCEED A MAXIMUM RATE OF 2 QUARTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN FALLOW AND REDUCED TILLAGE SYSTEMS.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN COTTON, PRIOR TO HARVEST.

### **AERIAL EQUIPMENT**

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

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)
- 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 mph per hour toward desirable vegetation may require buffer zones in excess of 500 feet.
- Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

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

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

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

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills, 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 APPLICATION IN FRESNO COUNTY, CA ONLY

### FROM FEBRUARY 15 THROUGH MARCH 31 ONLY

For aerial application outside these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" section of this label.

### Applicable Area

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

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

### **General Information**

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

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

### Written Recommendations

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

### **Aerial Application Training and Equipment**

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

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

### **WARRANTY STATEMENT**

Griffin warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials or the manner of use or application, all of which are beyond the control of Griffin. In no case shall Griffin be liable for consequential special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid for this product or at Griffin's election, the replacement of this product. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

dp 103000

Banvel, Prowl, Pursuit, Pursuit Plus, Scepter, Squadron and Guardeman are trademarks of BASF, Inc. GCN 041601

Bullet, Lasso, Micro-Tech, Partner, Lariat and Roundup are registered trademarks of Monsanto Company.

Command is a trademark of FMC Corporation.

DEF, Epic, Sencor are trademarks of Bayer Crop Protection.

Dual, Bicep, Solicam, Princep Caliber 90, and Turbo are trademarks of Novartis Corporation.

Goal is a trademark of Rohm and Haas Company.

Griffin and Design are a registered trademark of Griffin Corporation.

Oust, Krovar, Escort, Telar, Canopy, Gemini, Lexone, Lorox, Preview, Leadoff, Basis and Karmex are trademarks of E.I. duPont de Nemours and Company.

Balance, Folex and Prep are trademarks of Aventis Crop Science.

Surpass, Surpass 100, and Top Notch are trademarks of a Zeneca Company

Surflan is a trademark of DowAgro Sciences. ©2000 Griffin L.L.C., Valdosta, GA 31601