

# SHYPHO-AQ Aquatic & VM Herbicide

For Use on Emerged Aquatic Weeds and Brush in Aquatic and Other Noncrop Sites

## Active Ingredient

Glyphosate, N-(Phosphonomethyl) - glycine, as isopropylamine salt* .....	53.8%
Other Ingredients .....	46.2%
TOTAL .....	100.0%

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

EPA Reg.No. 83529-23

EPA Est.No. 37429-GA-01  
37429-GA-02  
39578-TX-01  
70815-GA-002  
1386-OH-1

Net Contents: 1 Gallon

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

### FIRST AID

#### If Inhaled

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

### EMERGENCY NUMBERS

**For 24 Hour Medical Emergency Assistance (Human or Animal) call 1-800-222-1222. for Chemical Emergency assistance (Spill, Leak, Fire, Accident), Call ChemTrec at 1-800-424-9300.**

**Have the product label with you when calling poison control, or doctor, or going for treatment.**

Manufactured for:

**Sharda USA LLC** 

7460 Lancaster Pike, Suite 9  
Hockessin, Delaware 19707



Member of CISQ Federation

**RINA**  
ISO 9001:2000  
Certified Quality System

## PRECAUTIONARY STATEMENTS

### Hazards To Humans And Domestic Animals

**CAUTION.** Harmful if inhaled. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

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

Read the entire label before using this product.

Use only according to label instructions.

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

### Environmental Hazards

Do not contaminate water when disposing of equipment washwaters or rinsate. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation. In case of spill or leak, soak up and remove to a landfill.

### Physical or Chemical Hazards

Spray solutions of this product must be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers. DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could 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.

### Storage and Disposal

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

**Pesticide Storage:** Keep container closed to prevent spills and contamination.

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

**Container Handling:** Nonrefillable container. Do not refill or reuse container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or 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.

### Product Information (How this product works)

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

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

**Stage of Weeds:** Unless otherwise directed on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials or crusts will not be affected by the spray and will continue to grow. 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 specified range when weed growth is heavy or dense. Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

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

**Rainfastness:** Rainfall occurring within 6 hours after application may reduce effectiveness of this product. Heavy rainfall or irrigation within 2 hours after application may wash the product off of the foliage and a repeat application may be required for adequate control.

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

**No Soil Activity:** When this product comes in contact with soil (on the soil surface or as suspended soil or sediment in water) it is bound to soil particles. Under specified use situations, once this product is bound to soil particles, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treatment area or if the soil is transported off-site. Under specified use conditions, the strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering groundwater. The affinity between this product and soil particles remains until this product is degraded.

**Biological Degradation:** Degradation of this product is primarily a biological process carried out by soil microbes under both aerobic and anaerobic conditions.

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

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

**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.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of plant or crop injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including less wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

#### **Mixing and Application Instructions**

Apply these spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes. Hand-gun applications must be properly directed to avoid spraying desirable plants. If using a surfactant for application to aquatic areas, the surfactant must be approved for aquatic use.

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

### **Mixing with Water**

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the specified amount of this product near the end of the filling process and mix well (See "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label). Add the required surfactant and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the water 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. Screen size in nozzle or line strainers must be no finer than 50 mesh. Carefully select correct nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Use a nonionic surfactant labeled for use with herbicides. The surfactant must contain 50 percent or more active ingredient.

Always read and follow the manufacturer's surfactant label specifications for best results.

These surfactants must not be used in excess of 1 quart per acre when making broadcast applications.

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 specifications.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water and dispose of rinsate according to labeled use or disposal instructions.

Carefully observe all cautionary statements and other information appearing in the surfactant label.

### **Application Equipment and Techniques**

#### **Aerial Equipment**

Use the specified rates of this product and surfactant in 3 to 20 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. Aerial applications of this product may only be made as specified in this label.

**Avoid drift. Do not apply into still air where there is a temperature inversion layer low enough for fine spray particles to become suspended and move outside the target area when the inversion layer moves. Do not apply when winds are gusty or under any other condition that favors drift. Drift is likely to cause damage to any vegetation contacted. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.**

Coarse sprays are less likely to drift therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure above the manufacturer's specifications.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label. The use of drift control additives can affect spray coverage, which may result in reduced performance.

**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 use of this product in California, see additional instructions in sections below.

### **Spray Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator.

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

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

The applicator must be familiar with and take into account the information covered in the **"Spray Drift Management"** section.

### **Importance of Droplet Size**

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

### **Controlling Droplet Size**

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

- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application height:** Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

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

**Wind:** Drift potential is lowest between wind speeds of 2 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 miles per hour due to variable wind direction and high inversion potential.

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

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

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

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

### **For Aerial Application in California Only**

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS. PLANTS, TREES, OF OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY OCCUR.

#### **Aquatic and Noncrop Sites**

When applied as directed and under the conditions described in the "Weeds Controlled" section of the label booklet for this product, this product will control or partially control the labeled weeds growing in the following industrial, recreational, and public areas.

- Aquatic Sites including:

All bodies of fresh and brackish water which may be flowing, nonflowing, or transient, including :

Lakes, rivers streams, ponds, seeps, irrigation and drainage ditches, canals, reservoirs, and estuaries.

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

1. There is no limit on the use of treated water for irrigation, recreation or domestic purposes.
2. Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.
3. Do not apply this product within ½ mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of an active potable water intake in a standing body of water such as a lake, pond, or reservoir. To make aquatic applications around and within ½ mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis.
4. These aquatic applications may be made only in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after application.

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

**Avoid drift : Do not apply when winds are gusty or under any other condition which will allow drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.**

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

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



4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

**FOR FRESNO COUNTY, CA ONLY**

**From February 15 through March 31 only**

For aerial application outside these dates, refer to the above section of this label.

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

North: Fresno County line

South: Fresno County line

East: State Highway 99

West: Fresno County line

**Product information**

Always read and follow the label directions and precautionary statements for all product used in the aerial application. Observe the following directions to minimize off-site movement during aerial application. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

**Written Recommendations**

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

**Aerial Applicator Training and Equipment**

Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to 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-in" 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.

### **Boom Equipment**

#### **For control of weed or brush species listed in this label using conventional boom equipment.**

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

#### **Hand-Held and High-Volume Equipment**

- Use coarse sprays only.
- For control of weeds listed in this label using knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements:
  - Prepare a ¾ to 2 percent solution of this product in water
  - Add a nonionic surfactant and apply to foliage of vegetation to be controlled.
  - For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.
  - Applications must be made on a spray-to-wet basis. Spray coverage must be uniform and complete.
  - Do not spray to point of run off.

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

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

Spray Solution						
Desired Volume	Desired Amount of SHYPHO-AQ Aquatic & VM Herbicide					
	¾ %	1 %	1¼ %	1½ %	5 %	8 %
1 gal.	1 oz.	1 ⅓ oz.	1 ⅔ oz.	2 oz.	6 oz.	10¼
25 gal.	1½ pt.	1 qt.	1¼ qt.	1½ qt.	5 qt.	2 gal.
100 gal.	3 qt.	1 gal.	1¼ gal.	1½ gal.	5 gal.	8 gal.
2 tablespoons = 1 fluid ounce						

For use in knapsack sprayers, mix the specified amount of this product with water in a larger container. Fill sprayer with the mixed solution and add the correct amount of surfactant.

**Weeds Controlled**

**Annual Weeds**

Apply to actively growing annual grasses and broadleaf weeds.

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

**Broadcast application:** Use 1½ pints of this product per acre plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution if weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2½ pints of this product per acre plus 2 or more quarts of an approved nonionic surfactant per 100 gallons of spray solution.

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

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

Balsamapple** <i>Momordica charantia</i>	Horseweed/Marestail <i>Conyza canadensis</i>	Shepherds purse <i>Capsella bursa-pastoris</i>
Barley <i>Hordeum vulgare</i>	Kochia <i>Kochia scoparia</i>	Signalgrass, broadleaf <i>Brachiaria platyphylla</i>
Barnyard grass <i>Echinochloa crusgalli</i>	Lambsquarters, common <i>Chenopodium album</i>	Smartweed, Pennsylvania <i>Polygonum pennsylvanicum</i>
Bassia, fivehook <i>Bassia hyssopifolia</i>	Lettuce, prickly <i>Lactuca serriola</i>	Sowthistle, annual <i>Sonchus oleraceus</i>
Bluegrass, annual <i>Poa annua</i>	Morningglory <i>Ipomoea spp.</i>	Spanishneedles* <i>Bidens bipinnata</i>
Bluegrass, bulbous <i>Poa bulbosa</i>	Mustard, blue <i>Chorispora tenella</i>	Spurry, umbrella <i>Holosteum umbellatum</i>
Brome <i>Bromus spp.</i>	Mustard, tansy <i>Descurainia pinnata</i>	Stinkgrass <i>Eragrostis cilianensis</i>
Buttercup <i>Ranunculus spp.</i>	Mustard, tumble <i>Sisymbrium altissimum</i>	Sunflower <i>Helianthus annuus</i>
Cheat <i>Bromus secalinus</i>	Mustard, wild <i>Sinapis arvensis</i>	Thistle, Russian <i>Salsola kali</i>
Chickweed, Mouseear <i>Cerastium vulgatum</i>	Oats, wild <i>Avena fatua</i>	Velvetleaf <i>Abutilon theophrastii</i>
Cocklebur <i>Xanthium strumarium</i>	Panicum <i>Panicum spp.</i>	Wheat <i>Triticum aestivum</i>
Corn, volunteer <i>Zea mays</i>	Pennycress, field <i>Thlaspi arvense</i>	Witchgrass <i>Panicum capillare</i>
Crabgrass <i>Digitaria spp.</i>	Pigweed, redroot <i>Amaranthus retroflexus</i>	
Dwarf dandelion <i>Krigia cespitosa</i>	Pigweed, smooth <i>Amaranthus hybridus</i>	
Falseflax, smallseed <i>Camelina microcarpa</i>	Ragweed, common <i>Ambrosia artemisiifolia</i>	
Fiddleneck <i>Amsinckia spp.</i>	Ragweed, giant <i>Ambrosia trifida</i>	

**When applied as directed under the conditions described in this label, this product plus nonionic surfactant WILL CONTROL the following ANNUAL WEEDS: (cont'd)**

Flaxleaf fleabane <i>Conyza bonariensis</i>	Rocket, London <i>Sisymbrium irio</i>	
Fleabane <i>Erigeron spp.</i>	Rye <i>Secale cereale</i>	
Foxtail <i>Setaria spp.</i>	Ryegrass, Italian* <i>Lolium multiflorum</i>	
Foxtail, Carolina <i>Alopecurus carolinianus</i>	Sandbur, field <i>Cenchrus spp.</i>	
Grounsel, common <i>Senecio vulgaris</i>	Shattercane <i>Sorghum bicolor</i>	

\* Apply 3 pints of this product per acre.

\*\*Apply with hand-held equipment only.

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

#### **Perennial Weeds**

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

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

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

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

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

Alfalfa <i>Medicago sativa</i>	Fescue <i>Festuca spp.</i>	Pampasgrass <i>Cortaderia jubata</i>
Alligatorweed* <i>Alternanthera philoxeroides</i>	Fescue, tall <i>Festuca arundinacea</i>	Paragrass <i>Brachiaria mutica</i>
Anise/Fennel <i>Foeniculum vulgare</i>	Guineagrass <i>Panicum maximum</i>	Phragmites** <i>Phragmites spp.</i>
Artichoke, Jerusalem <i>Helianthus tuberosus</i>	Hemlock, poison <i>Conium maculatum</i>	Quackgrass <i>Agropyron repens</i>
Bahiagrass <i>Paspalum notatum</i>	Horsenettle <i>Solanum carolinense</i>	Reed, giant <i>Arundo donax</i>
Bermudagrass <i>Cynodon dactylon</i>	Horseradish <i>Armoracia rusticana</i>	Ryegrass, perennial <i>Lolium perenne</i>
Bindweed, field <i>Convolvulus arvensis</i>	Ice Plant <i>Mesembryanthemum crystallinum</i>	Smartweed, swamp <i>Polygonum coccineum</i>
Bluegrass, Kentucky <i>Poa pratensis</i>	Johnsongrass <i>Sorghum halepense</i>	Spatardock <i>Nuphar luteum</i>
Blueweed, Texas <i>Helianthus ciliaris</i>	Kikuyugrass <i>Pennisetum clandestinum</i>	Starthistle, yellow <i>Centaurea solstitialis</i>
Brackenfern <i>Pteridium spp.</i>	Knapweed <i>Centaurea repens</i>	Sweet potato, wild* <i>Ipomoea pandurata</i>
Bromegrass, smooth <i>Bromus inermis</i>	Lantana <i>Lantana camara</i>	Thistle, artichoke <i>Cynara cardunculus</i>
Canarygrass, reed <i>Phalaris arundinacea</i>	Lespedeza: common, sericea <i>Lespedeza striata</i> <i>Lespedeza cuneata</i>	Thistle, Canada <i>Cirsium arvense</i>
Cattail <i>Typha spp.</i>	Lotus, American <i>Nelumbo lutea</i>	Timothy <i>Phleum pratense</i>
Clover, red <i>Trifotium pretense</i>	Maidencane <i>Panicum hematomon</i>	Torpedograss* <i>Panicum repens</i>
Clover, white <i>Trifolium repens</i>	Milkweed <i>Asclepias spp.</i>	Tules, common <i>Scirpus acutus</i>

**When applied as directed under the conditions described, this product plus surfactant WILL CONTROL the following PERENNIAL WEEDS: (cont'd)**

Cogongrass <i>Imperata cylindrica</i>	Muhly, wirestem <i>Muhlenbergia frondosa</i>	Vaseygrass <i>Paspalum urvillei</i>
Cordgrass <i>Spartina spp.</i>	Mullein, common <i>Verbascum thapsus</i>	Velvetgrass <i>Holcus spp.</i>
Cutgrass, giant* <i>Zizaniopsis miliacea</i>	Napiargrass <i>Pennisetum purpureum</i>	Waterhyacinth <i>Eichomia crassipes</i>
Dallisgrass <i>Paspalum dilatatum</i>	Nightshade, silverleaf <i>Solanum elaeagnifolium</i>	Waterlettuce <i>Pistia stratiotes</i>
Dock, curly <i>Rumex crispus</i>	Nutsedge: purple, yellow <i>Cyperus rotundus</i> <i>Cyperus esculentus</i>	Waterprimrose <i>Ludwigia spp.</i>
Dogbane, hemp <i>Apocynum cannabinum</i>	Orchardgrass <i>Dactylis glomerata</i>	Wheatgrass, western <i>Agropyron smithii</i>

\* Partial control.

\*\*Partial control in southeastern states - See specific instructions below.

**Alligatorweed**- Apply 6 pints of this product per acre as a broadcast spray or as a 1¼ percent solution with hand-held equipment to provide partial control of alligatorweed. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

**Bermudagrass** - Apply 7½ pints of this product per acre as a broadcast spray or as a ½ percent solution with hand-held equipment. Apply when target plants are actively growing and when seedheads appear.

**Bindweed, field/Silverleaf Nightshade/Texas Blueweed** - Apply 6 to 7½ pints of this product per acre as a broadcast spray west of the Mississippi River and 4½ to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1½ percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

**Brackenfern** - Apply 4½ to 6 pints of this product per acre as a broadcast spray or as a ¾ to 1 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Cattail** - Apply 4½ to 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

**Cogongrass** - Apply 4½ to 7½ pints of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray

coverage, repeat treatments may be necessary to maintain control.

**Cordgrass** - Apply 4½ to 7½ pints of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment. Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of debris and silt on the cordgrass plants will reduce performance. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant.

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

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

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

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

**Johnsongrass / Bluegrass, Kentucky / Bromegrass, smooth / Canarygrass, reed / Orchardgrass / Ryegrass, perennial / Timothy / Wheatgrass, western** - Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

**Lantana** - Apply this product as a ¾ to 1 percent solution with hand-held equipment. Apply to actively growing Lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

**Loosestrife, purple** - Apply 4 pints of this product per acre as a broadcast spray or as a 1 to 1 ½ percent solution using hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.

**Lotus, American** - Apply 4 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.

**Maidencane/ Paragrass** - Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7- to 10- leaf stage prior to retreatment.



**Milkweed, common** - Apply 4½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.

**Nutsedge** - purple, yellow - Apply 4½ pints of this product per acre as a broadcast spray, or as a ¾ percent solution with handheld equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

**Pampasgrass** - Apply a 1½ percent solution of this product with hand-held equipment when plants are actively growing.

**Phragmites** - For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 7½ pints per acre as a broadcast spray or apply a 1½ percent solution with hand-held equipment, in other areas of the U.S. apply 4 to 6 pints per acre as a broadcast spray or apply a ¾ percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control, visual control symptoms will be slow to develop.

**Quackgrass/ Kikuyugrass/ Muhly, wirestem** - Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment when most quackgrass or wirestem muhly is at least 8 inches in height (3 to 4- leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Reed, giant/ Ice plant** - For control of giant reed and ice plant, apply a 1½ percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in late summer to fall.

**Spatterdock** - Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

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

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

**Torpedograss** - Apply 6 to 7½ pints of this product per acre as a broadcast spray or as a ¾ to 1½ percent solution with handheld equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

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

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

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

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

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

### Woody Brush and Trees

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

Alder <i>Alnus spp.</i>	Dewberry <i>Rubus trivalis</i>	Monkey Flower* <i>Mimulus guttatus</i>
Ash* <i>Fraxinus spp.</i>	Dogwood <i>Cornus spp.</i>	Oak: Black <i>Quercus velutina</i>
Aspen, quaking <i>Populus tremuloides</i>	Elderberry <i>Sambucus spp.</i>	Oak: Northern pine <i>Quercus palustris</i>
Bearclover, Bearmat <i>Chamaebatia foliolosa</i>	Elm* <i>Ulmus spp.</i>	Oak: Post <i>Quercus rubra</i>
Birch <i>Betula spp.</i>	Eucalyptus, bluegum <i>Eucalyptus globules</i>	Oak: Red <i>Quercus stellata</i>
Blackberry <i>Rubus spp.</i>	Hasardia* <i>Haplopappus squamosus</i>	Oak: Southern red <i>Quercus falcate</i>
Broom: French <i>Cytisus monspessulanus</i>	Hawthorn <i>Crataegus spp.</i>	Oak: White* <i>Quercus alba</i>
Scotch <i>Cytisus scoparius</i>	Hazel <i>Corylus spp.</i>	Persimmon* <i>Diospyros spp.</i>
Buckwheat, California* <i>Eriogonum fasciculatum</i>	Hickory <i>Carya spp.</i>	Poison Ivy <i>Rhus radicans</i>
Cascara* <i>Rhamnus purshiana</i>	Holly, Florida: Brazilian Peppertree <i>Schinus terebinthifolius</i>	Poison Oak <i>Rhus toxicodendron</i>
Catsclaw* <i>Acacia greggi</i>	Honeysuckle <i>Lonicera spp.</i>	Poplar, yellow* <i>Liriodendron tulipifere</i>
Ceanothus <i>Ceanothus spp.</i>	Hornbeam, American <i>Carpinus ceroliniana</i>	Prunus <i>Prunus spp.</i>
Chamise <i>Adenostoma fasciculatum</i>	Kudzu <i>Pueraria lobata</i>	Raspberry <i>Rubus spp.</i>

**When applied as specified under the conditions described, this product plus surfactant CONTROLS or PARTIALLY CONTROLS the following woody brush plants and trees: (cont'd)**

Cherry: Bitter <i>Prunus emarginata</i>	Locust, black* <i>Robinia pseudoacacia</i>	Redbud, eastern <i>Cercis canadensis</i>
Cherry: Black <i>Prunus serotina</i>	Manzanita <i>Arctostaphylos spp.</i>	Rose, multiflora <i>Rosa multiflora</i>
Cherry: Pin <i>Prunus pensylvanica</i>	Maple: Red <i>Acer rubrum</i>	Russian-olive <i>Elaeagnus angustifolia</i>
Coyote brush <i>Baccharis consanguinea</i>	Maple: Sugar <i>Acer saccharum</i>	Sage: black, white <i>Salvia spp.</i>
Creeper, Virginia <i>Parthenocissus quinquefolia</i>	Maple: Vine* <i>Acer circinetum</i>	Sagebrush: California <i>Artemisia californica</i>
Salmonberry <i>Rubus spectabilis</i>	Sumac: Smooth* <i>Rhus glabra</i>	Tobacco, tree* <i>Nicotiana glauca</i>
Salt cedar* <i>Tamarix spp.</i>	Sumac: Winged* <i>Rhus copallina</i>	Trumpetcreeper <i>Campsis radicans</i>
Saltbush, Sea myrtle <i>Baccharis halmifolia</i>	Sweet gum <i>Liquidambar styraciflua</i>	Waxmyrtle, southern* <i>Myrica cerifera</i>
Sassafras <i>Sassafras albidum</i>	Swordfern* <i>Polystichum munitum</i>	Willow <i>Salix spp.</i>
Sourwood <i>Oxydendrum arboretum</i>	Tallowtree, Chinese <i>Sapiium sebiferum</i>	
Sumac: Poison* <i>Rhus vemix</i>	Thimbleberry <i>Rubus parviflorus</i>	

\*Partial control

\*\*See below for control or partial control instruction.

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

Apply the specified rate of this product plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution when plants are actively growing and, unless otherwise directed, after full-leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have

reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring or early summer when brush species are at high moisture content and are flowering. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

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

See the "DIRECTIONS FOR USE" and "MIXING AND APPLICATION INSTRUCTIONS" sections in this label for labeled use and specific application instructions.

Applied as a 5 to 8 percent solution as a directed application as described in the "HAND-HELD AND HIGH-VOLUME EQUIPMENT" section, this product will control or partially control all species listed in this section of this label. Use the higher rate of application for dense stands and larger woody brush and trees.

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

**Alder / Blackberry / Dewberry / Honeysuckle / Oak, Post / Raspberry** - For control, apply 4½ to 6 pints per acre as a broadcast spray or as a ¾ to 1¼ percent solution with hand-held equipment.

**Aspen, Quaking / Hawthorn / Trumpet creeper** - For control, apply 3 to 4¼ pints of this product per acre as a broadcast spray or as a ¾ to 1¼ percent solution with hand-held equipment.

**Birch / Elderberry / Hazel / Salmonberry / Thimbleberry** - For control, apply 3 pints per acre of this product as a broadcast spray or as a ¾ percent solution with hand-held equipment.

**Broom: French, Scotch** - For control, apply a 1¼ to 1½ percent solution with hand-held equipment.

**Buckwheat, California / Hasardia / Monkey Flower / Tobacco, Tree** - For partial control of these species apply a ¾ to 1½ percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Catsclaw** - For partial control, apply a 1¼ to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Cherry: Bitter, Black, Pin/ Oak, Southern Red/Sweet Gum/ Prunus** - For control, apply 3 to 7½ pints of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.

**Coyote brush** - For control, apply a 1¼ to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Dogwood/ Hickory/ Salt cedar** - For partial control, apply a 1 to 2 percent solution of this product with hand-held equipment or 6 to 7½ pints per acre as a broadcast spray.

**Eucalyptus, bluegum** - For control of eucalyptus resprouts, apply a 1½ percent solution of this product with hand-held equipment when resprouts are 6 to 12- feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought-stressed plants.

**Holly, Florida/ waxmyrtle, southern** - For partial control, apply this product as a 1½ percent solution with hand-held equipment.

**Kudzu** - For control, apply 6 pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Maple, Red** - For control, apply as a ¾ to 1¼ percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 2 to 7½ pints of this product per acre as a broadcast spray.

**Maple, Sugar / Oak: Northern Pine, Red** - For control, apply as a ¾ to 1¼ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

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

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

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

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

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

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

#### **Aquatic and Other Noncrop Sites**

When applied as directed and under the conditions described in the "WEEDS CONTROLLED" section in this label, this product will control or partially control the labeled weeds growing in the following industrial, recreational and public areas or other similar aquatic and terrestrial sites.

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

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

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

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

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

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

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds.

Floating Mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not re-treat within 24 hours following the Initial treatment.

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

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

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

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

**Wildlife Habitat Restoration and Management Areas**

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

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

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

**Wiper Applications** - For wick or wiper applications mix 1 gallon of this product with 2 gallons of clean water to make a 33 percent solution. Add a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution. Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stand, a double application in opposite directions may improve results. See the "WEEDS CONTROLLED" section in this label for specified timing, growth stage and other instructions for achieving optimum results.

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

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

Alder	Madrone	Salt Cedar
<i>Alnus spp.</i>	<i>Arbutus menziesii</i>	<i>Tamarix spp.</i>
Coyote brush*	Maple*	Sweet gum
<i>Baccharis consanguinea</i>	<i>Acer spp.</i>	<i>Liquidambar styraciflua</i>
Dogwood*	Oak	Sycamore
<i>Cornus spp.</i>	<i>Quercus spp.</i>	<i>Platanus occidentalis</i>
Eucalyptus	Poplar	
<i>Eucalyptus</i>	<i>Populus spp.</i>	
Hickory*	Reed Giant	
<i>Carya spp.</i>	<i>Arundo donax</i>	

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



### **Injection and Frill Applications**

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into living tissue. Apply the equivalent of 1 ml of this product per 2 to 3 inches of trunk diameter. This is best achieved by applying 25 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying dilute material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as these, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, applications should be made during periods of active growth and full leaf expansion.

<b>This treatment WILL CONTROL the following woody species</b>	
Oak	Sweet Gum
Quercus spp.	Liquidambar styraciflua
Poplar	Sycamore
Populus spp.	Plantanus occidentalis
<b>This treatment WILL SUPPRESS the following woody species</b>	
Black gum*	Hickory
Nyssa sylvatica	Carya spp.
Dogwood	Maple, red
Comus spp.	Acer rubrum

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

### **Injection Method for Control of Japanese Knotweed (*Polygonum cuspidatum*) & Giant Knotweed (*Polygonum polystachyum*)**

This product may be used for control of Japanese knotweed and giant knotweed using individual stem treatment. Individual knotweed stems may be treated by injecting up to a 5 ml of undiluted product directly into the hollow stem just below a node. A hole suitable for injecting the herbicide must be made through both sides of the stem using an awl or other convenient pointed tool about 6 inches above the ground, just below a node. (Nodes are circular thickenings or scars surrounding the stem where leaves are or were previously attached). The herbicide is then injected into this hole. Each stem of the knotweed plant must be treated.

This product can be injected using any injection device capable of delivering a 5 ml dose. For convenience and accuracy use a hand-operated injection device designed to deliver repeated pre-measured doses from a supply reservoir. Commercially available dose measuring equipment may be adapted for this purpose. Calibrate the device to deliver a dose of 5 ml per injection cycle. A sharpened hollow probe for puncturing the stem and delivery of the herbicide can also be integrated into the delivery system.

**Restriction:** Do not apply more than 7.5 quarts of this product per acre. At 5 ml per stem, 7.5 quarts is sufficient to treat a maximum of 1,420 stems per acre.

**Release of Bermudagrass or Bahiagrass on Noncrop Sites**

**Release of Dormant Bermudagrass and Bahiagrass**

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

For best results on winter annuals, treat when weeds are in an early growth stage (below 6 inches in height) after most have germinated.

For best results on tall fescue, treat when fescue is in or beyond the 4 to 6-leaf stage.

**Weeds Controlled**

Rate specifications for control or suppression of winter annuals and tall fescue are listed below.

Apply the specified rates of this product in 10 to 25 gallons of water per acre plus 2 quarts nonionic surfactant per 100 gallons of total spray volume.

<b>SHYPHO - AQ Aquatic &amp; VM Herbicide (Fluid Oz./Acre)</b>						
Weed Species	6	9	12	18	24	48
Barley little ( <i>Hordeum pusillum</i> )	S	C	C	C	C	C
Bedstraw, catchweed( <i>Galium aparine</i> )	S	C	C	C	C	C
Bluegrass, annual ( <i>Poa annua</i> )	S	C	C	C	C	C
Chervil ( <i>Chaerophyllum tainturien</i> )	S	C	C	C	C	C
Chickweed common ( <i>Stellaria media</i> )	S	C	C	C	C	C
Clover, crimson ( <i>Trifolium incarnatum</i> )	•	S	S	C	C	C
Clover, large hop ( <i>Trifolium campestre</i> )	•	S	S	C	C	C
Speedwell corn ( <i>Veronica arvensis</i> )	S	C	C	C	C	C
Fescue, tall ( <i>Festuca arundianacea</i> )	•	•	•	•	S	S
Geranium, Carolina ( <i>Geranium caroliniaum</i> )	•	•	S	S	C	C
Henbit ( <i>Lamium amplexicaule</i> )	•	S	C	C	C	C
Ryegrass, Italian ( <i>olium multiflorum</i> )	•	•	S	C	C	C
Vetch, common ( <i>Vicia sativa</i> )	•	•	S	C	C	C

C=Control S=Suppression

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

### **Release of Actively Growing Bermudagrass**

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

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

For control or suppression of those annual species listed in this label use  $\frac{3}{4}$  to  $2\frac{1}{4}$  pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre, plus 2 quarts of a nonionic surfactant per 100 gallons of total spray volume. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as size of plants increases or as they approach flower or seedhead formation.

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

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

\*Suppression at the higher rate only.

\*\*Johnsongrass is controlled at the higher rate.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but no growth will occur under moist conditions. Do not repeat applications in the same season, since severe injury may result.

### **Bahiagrass Seedhead and Vegetative Suppression**

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

Apply this product 1 to 2 weeks after full green-up of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 5 fluid ounces per acre of this product plus 2 quarts of an approved nonionic surfactant per 100 gallons or total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued vegetative growth suppression, sequential applications must be made prior to seedhead emergence.

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

### **Annual Grass Growth Suppression**

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other Industrial areas, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Applications must 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.

### **Limit of Warranty and Liability**

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

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

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

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