SHORE-KLEAR®
Aquatic Herbicide

FOR USE ON EMERGED AQUATIC WEEDS AND BRUSH IN AQUATIC SITES.
FOR USE IN FORESTRY, HABITAT RESTORATION AREAS, NON-CROP AND
OTHER LISTED APPLICATION SITES.

ACTIVE INGREDIENT:
Glyphosate, N-(phosphonomethyl)glycine,
in the form of its isopropylamine salt*..........................53.8%
OTHER INGREDIENTS:.............................................................46.2%
TOTAL:......................................................................................100.0%
*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the
active ingredient, glyphosate, in the form of its isopropylamine salt.
Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the
acid, glyphosate.

KEEP OUT OF REACH OF CHILDREN
CAUTION-PRECAUCIÓN
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.)
SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL
PRECAUTIONARY STATEMENTS
For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC
(800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840
EPA REG. NO. 228-365-8959
EPA EST. NO. 42291-GA-1

NET CONTENTS: 32 FL. OZS. (.946L)
**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a 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 State or Tribal agency responsible for pesticide regulation. Read the entire label before using this product. Use strictly in accordance with label precautionary statements and directions.

**PRODUCT INFORMATION**

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT. This product, a water-soluble liquid, mixes readily with water and nonionic surfactant to be applied as a foliar spray after dilution and thoroughly mixing with water in accordance with label instructions for the control or destruction of many herbaceous and woody plants. Always use the higher rate of this product per acre within the specified range when vegetation is heavy or dense, when treating dense multi-canopied sites or woody vegetation or difficult-to-control herbaceous or woody plants. 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 brush species may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow the 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 directed on this label, delay application until vegetation has emerged and SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

**SKU No. 13282A**  
Part No. 5911440

Manufactured for:  
Applied Biochemists  
1400 Bluegrass Lakes Pkwy  
Alpharetta GA 30004  
1-800-558-5106

EPA Reg. No. 228-365-8959  
EPA Est. No. 42291-GA-1

mock upc  
038005132822
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 brush will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds or brush is obtained when treatment is made at late growth stages approaching maturity.

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

Reduced control may result when applications are made to any weed or brush species 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 product off the foliage and a repeat treatment may be required.

Mixing this product with herbicides or other materials not instructed in this label may result in reduced performance. However, unless otherwise prohibited on this label or the label of an intended tank mix product may be applied in combination with any herbicide registered for the same site, timing, and method of application. Observe the most restrictive label statements of various tank mix products used.

TO THE FULL-EST EXTENT PERMITTED BY LAW, BUYER AND ALL USERS ARE RESPONSIBLE FOR ALL LOSS OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF MIXTURES OF THIS PRODUCT OR OTHER MATERIALS THAT ARE NOT EXPRESSLY SPECIFIED IN THIS LABEL.

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

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 labeled 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 labeled use conditions, the strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering ground water.

The affinity between this product and soil particles remains until this product is degraded, which is primarily a biological degradation process carried out under both aerobic and anaerobic conditions by soil micro flora.

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. Read “WARRANTY DISCLAIMER” and “LIMITATION OF LIABILITY” before buying or using. If items are not acceptable, return at once unopened. Buyer and all users are responsible for all loss or damage in connection with the use of handling of mixtures of this product or other materials that are not expressly specified in this label.

For more product information, call toll-free 1-800-558-5106.

ATTENTION 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.

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

Do not allow the herbicide solution to mist, drip 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 lesser 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.

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. When not in use, keep container closed to prevent spills and contamination.

WEED RESISTANCE

Any weed population may contain plants that
are naturally resistant to glyphosate, the active ingredient in this product, and to other herbicides with the same mode of action. ATTENTION: These resistant weed biotypes will not be controlled by this product. Consult advisors such as your local agricultural extension service for agronomic management practices to minimize the occurrence of glyphosate resistance and considerations for supplemental control measures.

**Weed Management**

To minimize the occurrence of glyphosate-resistant biotypes, observe the following general weed management practices:

- Scout application site before and after herbicide applications.
- Start with a clean application site, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
- Utilize the specified label rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixture directions that encourage application rates of this product below the label directions.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Report any incidence of repeated non-performance of this product on a particular weed to your Applied Biochemists representative, local retailer, or county extension agent.

**Management of Glyphosate-Resistant Biotypes**

Since the occurrence of new glyphosate-resistant weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes. The following good agronomic practices are recommended to reduce the spread of confirmed glyphosate-resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

**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.**

**NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.**

**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.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted SLOWLY through the screen into the tank. Continue agitation.
6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
8. 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. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and if needed use an approved anti-foam or defoaming agent. Use screen size in nozzle or line strainers that are 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. 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 instructions for best results. Do not use surfactants in excess of 1 quart per acre when making broadcast applications. Colorants or marking dyes approved for use with herbicides may be added to spray mixtures of 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 label instructions. 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
This product may be applied with the following application equipment:

**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, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

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

**Selective Equipment**- Recirculating sprayers and wiper applicators. See the appropriate part of this section for specific instructions and rates of application.

**APPLICATION INFORMATION**
Observe the following directions to minimize off-site movement during application of this herbicide. Minimization of off-site movement is the responsibility of the grower and Pest Control Advisor.

**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 may 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 0.75 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 in this label. Apply on a spray-to-wet basis so that the spray coverage is uniform and complete. Do not spray to point of runoff.
This product may be used as a 5 to 8 percent solution plus 0.5 to 1 fluid ounce non-ionic surfactant per gallon spray 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 motion. 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. For use in knapsack sprayers, it is suggested that the specified amount of this product be mixed with water in a large container. Fill sprayer with the mixed solution and add the correct amount of surfactant.

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

### SELECTIVE EQUIPMENT
For terrestrial application, this product may be applied through a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any non-crop site specified on this label.

- 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.**

This section summarizes the general weed control spectrum and rates of application for this herbicide. Additional information specific to individual use patterns is detailed in following sections.

### 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 these factors when making decisions.

**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 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 higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer’s specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure. Higher pressure reduces droplet size and does not improve canopy protection.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released backwards, parallel to the air stream produces larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and

### SPRAY SOLUTION

<table>
<thead>
<tr>
<th>DESIRED VOLUME</th>
<th>AMOUNT OF PRODUCT</th>
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<tbody>
<tr>
<td></td>
<td>0.75%</td>
</tr>
<tr>
<td>1 Gallon</td>
<td>1.0 fl. oz.</td>
</tr>
<tr>
<td>25 Gallons</td>
<td>1.5 pts.</td>
</tr>
<tr>
<td>100 Gallons</td>
<td>3.0 qts.</td>
</tr>
</tbody>
</table>

2 Tablespoons = 1 fluid ounce
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 the largest droplets and the lowest drift.

- **Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

- **Application Height** - Applications must not be made at a height greater than 10 feet above the top of the largest plants. Making applications at the lowest height that is safe reduces exposure of 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 upwind. Swath adjustment distance must increase, with increasing drift potential (higher wind, smaller drops, etc.).

**Wind**
Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Do not make applications when wind speed is below 2 mph 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 spray 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 local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source. 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**
Only make applications 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).

**WEEDS CONTROLLED**

**ANNUAL WEEDS**
Apply to actively growing annual grasses and broadleaf weeds.
Allow at least 3 days after application before disturbing treated vegetation. After this period the 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 1-1/2 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 2-1/2 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 3/4 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 non-ionic surfactant WILL CONTROL the following ANNUAL WEEDS:

- **Balsamapple**
  - *Momordica charantia*
- **Barley**
  - *Hordeum vulgare*
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.

<table>
<thead>
<tr>
<th>Weed Type</th>
<th>Common Name</th>
<th>/ Scientific Name</th>
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</thead>
<tbody>
<tr>
<td>Barnyardgrass</td>
<td><em>Echinochloa crus-galli</em></td>
<td></td>
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<tr>
<td>Bassia, fivehook</td>
<td><em>Bassia hys-sopifolia</em></td>
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<tr>
<td>Bluegrass, annual</td>
<td><em>Poa annua</em></td>
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<tr>
<td>Bluegrass, bulbous</td>
<td><em>Poa bulbosa</em></td>
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<tr>
<td>Brome*</td>
<td><em>Bromus spp.</em></td>
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<tr>
<td>Buttercup</td>
<td><em>Ranunculus spp.</em></td>
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<tr>
<td>Cheat</td>
<td><em>Bromus secalinus</em></td>
<td></td>
</tr>
<tr>
<td>Chickweed, mouseear</td>
<td><em>Cerastium vulgatum</em></td>
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<tr>
<td>Cocklebur</td>
<td><em>Xanthium strumarium</em></td>
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<tr>
<td>Corn, volunteer</td>
<td><em>Zea mays</em></td>
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<tr>
<td>Crabgrass</td>
<td><em>Digitaria spp.</em></td>
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<tr>
<td>Dwarf dandelion</td>
<td><em>Krigia cespitosa</em></td>
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<tr>
<td>False dandelion</td>
<td><em>Krigia cespitosa</em></td>
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<tr>
<td>Falseflax, smallseed</td>
<td><em>Camelina microcarpa</em></td>
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<tr>
<td>Fiddleneck*</td>
<td><em>Amsinckia spp.</em></td>
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<tr>
<td>Flax leaf fleabane*</td>
<td><em>Conyza bonariensis</em></td>
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<tr>
<td>Fleabane</td>
<td><em>Erigeron spp.</em></td>
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<tr>
<td>Foxtail</td>
<td><em>Setaria spp.</em></td>
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<tr>
<td>Foxtail, Carolina</td>
<td><em>Alopecurus carolinianus</em></td>
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<tr>
<td>Groundsel, common</td>
<td><em>Senecio vulgaris</em></td>
<td></td>
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<tr>
<td>Horseweed/ Marestail</td>
<td></td>
<td></td>
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<tr>
<td>Conyza</td>
<td><em>canadensis</em></td>
<td></td>
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<tr>
<td>Kochia*</td>
<td><em>Kochia scoparia</em></td>
<td></td>
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<tr>
<td>Lambquarters, common</td>
<td><em>Chenopodium album</em></td>
<td></td>
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<tr>
<td>Lettuce, prickly*</td>
<td><em>Lactuca serriola</em></td>
<td></td>
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<tr>
<td>Morningglory</td>
<td><em>Ipomoea spp.</em></td>
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<tr>
<td>Mustard, blue</td>
<td><em>Chorispora tenella</em></td>
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<tr>
<td>Mustard, tansy</td>
<td><em>Descurainia pinnata</em></td>
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<tr>
<td>Mustard, tumble</td>
<td><em>Sisymbrium altissimum</em></td>
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<tr>
<td>Mustard, wild</td>
<td><em>Sinapis arvensis</em></td>
<td></td>
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<tr>
<td>Oats, wild</td>
<td><em>Avena fatua</em></td>
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<tr>
<td>Panicum*</td>
<td><em>Panicum spp.</em></td>
<td></td>
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<tr>
<td>Pennycress, field</td>
<td><em>Thlaspi arvense</em></td>
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<tr>
<td>Pigweed, redroot</td>
<td><em>Amaranthus retroflexus</em></td>
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<tr>
<td>Pigweed, smooth</td>
<td><em>Amaranthus hybridus</em></td>
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<tr>
<td>Ragweed, common*</td>
<td><em>Ambrosia artemisiifolia</em></td>
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<tr>
<td>Ragweed, giant*</td>
<td><em>Ambrosia trifida</em></td>
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<tr>
<td>Rocket, London</td>
<td><em>Sisymbrium irio</em></td>
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<tr>
<td>Rye</td>
<td><em>Secale cereale</em></td>
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<tr>
<td>Ryegrass, Italian*</td>
<td><em>Lolium multiflorum</em></td>
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<tr>
<td>Sandbur, field</td>
<td><em>Cenchrus spp.</em></td>
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<tr>
<td>Shattercane</td>
<td><em>Sorghum bicolor</em></td>
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<tr>
<td>Shepherd's-purse</td>
<td><em>Capsella bursapastoris</em></td>
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<tr>
<td>Signalgrass, broadleaf</td>
<td><em>Brachiaria platyphylla</em></td>
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<tr>
<td>Smartweed,</td>
<td><em>Polygonum pensylvanicum</em></td>
<td></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td><em>Sonchus oleraceus</em></td>
<td></td>
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<tr>
<td>Spanishneedles*</td>
<td><em>Bidens bipinnata</em></td>
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<tr>
<td>Spurry, umbrella</td>
<td><em>Holosteum umbellatum</em></td>
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<tr>
<td>Stinkgrass</td>
<td><em>Eragrostis</em></td>
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<tr>
<td>Sunflower*</td>
<td><em>Helianthus annuus</em></td>
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<tr>
<td>Thistle, Russian</td>
<td><em>Salsola kali</em></td>
<td></td>
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<tr>
<td>Velvetleaf*</td>
<td><em>Abutilon theo- phrasti</em></td>
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</tr>
<tr>
<td>Wheat</td>
<td><em>Triticum aestivum</em></td>
<td></td>
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<tr>
<td>Witchgrass</td>
<td><em>Panicum capillare</em></td>
<td></td>
</tr>
</tbody>
</table>

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.

See individual control instructions for specific weeds following the table. For other perennials listed on this label, apply 4-1/2 to 7-1/2 pints of product per acre as a broadcast spray or as a 3/4 to 1-1/2 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.

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 recommended 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 specified under the conditions described, this product plus surfactant **WILL CONTROL** the following **PERENNIAL WEEDS:**

---
**Alfalfa** Medicago sativa

**Alligatorweed*** Alternanthera philoxeroides

**Anise/Fennel** Foeniculum vulgare

**Artichoke, Jerusalem** Helianthus tuberosus

**Bahiagrass** Paspalum notatum

**Bermudagrass** Cynodon dactylon

**Bindweed, field** Convolvulus arvensis

**Bluegrass, Kentucky** Poa pratensis

**Bluestem, Texas** Helianthus ciliaris

**Brackenfern** Pteridium spp.

**Broomberry, smooth** Bromus inermis

**Canarygrass, reed** Phalaris arundinacea

**Cat to** Typha spp.

**Clover, red** Trifolium pratense

**Clover, white** Trifolium repens

**Cogongrass** Imperata cylindrica

**Cordgrass** Spartina spp.

**Cutgrass, giant*** Zizaniopsis miliacea

**Dallisgrass** Paspalum dilatatum

**Dandelion** Taraxacum officinale

**Dock, curly** Rumex crispus

**Dogbane, hemp** Apocynum cannabinum

**Fescue** Festuca spp.

**Festuca arundinacea**

**Guineagrass** Panicum maximum

**Hemlock, poison** Conium maculatum

**Horsenettle** Solanum carolinense

**Horseradish** Armoracia rusticana

**Ice Plant** Mesembryanthemum crystallinum

**Johnsongrass** Sorghum halepense

**Kikuyugrass** Pennisetum clandestinum

**Knapsack** Centaura repens

**Lantana** Lantana camara

**Lespedeza:**

- common, services
- Lespedeza striata
- Lespedeza cuneata

**Loosestrife, purple** Lythrum salicaria

**Lotus, American** Nelumbo lutea

**Maidencane** Panicum hema-tomon

**Milkweed** Asclepias spp.

**Muhly, wirestem** Muhlenbergia frondosa

**Mullein, common** Verbascum thapsus

**Napiergrass** Pennisetum purpureum

**Nightshade, silverleaf** Solanum elaeagnifolium

**Nutsedge:**

- purple, yellow

- Cyperus rotundus
- Cyperus esculentus

**Orchardgrass** Dactylis glomerata

**Pampas grass** Cortaderia jubata

**Paragras** Brachiaria mutica

**Phragmites*** Phragmites spp.

**Quackgrass** Agropyron repens

**Reed, giant** Arundo donax

**Rye grass, perennial** Lolium perenne

**Smartweed, swamp** Polygonum coc-cineum

**Spartdock** Nuphar luteum

**Starthistle, yellow** Centaura solstitialis

**Sweet potato, wild** Ipomoea pandurata

**Thistle, artichoke** Cynara cardunculus

**Thistle, Canada** Cirsium arvense

**Timothy** Phleum pratense

**Torpedograss*** Panicum repens

**Tules, common** Scirpus acutus

**Vaseygrass** Paspalum urvillei

**Velvetgrass** Holcus spp.

**Waterhyacinth** Eichhornia crassipes

**Waterletuce** Pistia stratiotes

**Waterprimrose** Ludwigia spp.

**Wheatgrass, western** Agropyron smithii

*Partial control.

**Alligatorweed** - Apply 6 pints of this product per acre as a broadcast spray or as a 1-1/4 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 7-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 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 7-1/2 pints of this product per acre as a broadcast spray west of the Mississippi River and 4-1/2 to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1-1/2 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 southeastern states. See specific instructions below.

*Partial control.

**Alligatorweed** - Apply 6 pints of this product per acre as a broadcast spray or as a 1-1/4 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 7-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 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 7-1/2 pints of this product per acre as a broadcast spray west of the Mississippi River and 4-1/2 to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1-1/2 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 southeastern states. See specific instructions below.
indicates active growth. For best results apply in late summer or fall.

**Brackenfern** - Apply 4-1/2 to 6 pints of this product per acre as a broadcast spray or as a 3/4 to 1 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Cattail** - Apply 4-1/2 to 6 pints of this product per acre as a broadcast spray or as a 3/4 to 1 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 4-1/2 to 7-1/2 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 4-1/2 to 7-1/2 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. Repeat applications will be required, especially to vegetation 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 1-1/2 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 the 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 3/4 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 the 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 4-1/2 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 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 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 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with handheld 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 3/4 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 1-1/2 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.

**Milkweed, common** - Apply 4-1/2 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.
a 1-1/2 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 4-1/2 pints of this product per acre as a broadcast spray, or as a 3/4 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 1-1/2 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 7-1/2 pints per acre as a broadcast spray or apply a 1-1/2 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 3/4 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 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 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 1-1/2 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 3/4 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 1-1/2 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 recommended stage of growth before retreatment.

**Thistle: Canada, artichoke** - Apply 3 to 4-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 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 7-1/2 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with handheld equipment to provide partial control of torpedo grass. 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 1-1/2 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 3/4 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 3/4 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 3/4 percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

**Other perennials listed on this label** - Apply
4-1/2 to 7-1/2 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/2 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
See individual control instructions for specific woody brush and trees to be controlled in the following table. For partial control of other woody brush and trees listed in the table, apply 1.5 to 7.5 quarts of this product per acre as a broadcast spray or as a 0.75 to 10 percent solution with hand-held equipment. 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.

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 the label. Use the higher rate of application for dense stands and larger woody brush and trees.

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 treatment.

Allow 7 or more days after application before 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. NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stage of growth.

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

**Alder Alnus spp.**

**Ash** Fraxinus spp.

**Aspen, quaking** Populus tremuloides

**Bearclovever, Bearmat** Chamaebatia foliolosa

**Birch Betula spp.**

**Blackberry Rubus 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** Bacharis consanguinea

**Creeper, Virginia** Parthenocissus quinquefolia

**Dewberry** Rubus trivialis

**Dogwood** Cornus spp.

**Elderberry** Sambucus spp.

**Elm** Ulmus spp.

Application Rates

<table>
<thead>
<tr>
<th>METHOD OF APPLICATION</th>
<th>APPLICATION RATE</th>
<th>SPRAY VOLUME (Gallons/Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadcast Ground</td>
<td>1.5 to 7.5 qts./acre</td>
<td>10 to 60</td>
</tr>
<tr>
<td>Spray-to-Wet Handgun, Backpack, Mistblower</td>
<td>0.75% to 2.0% by volume</td>
<td>Spray-to-Wet</td>
</tr>
<tr>
<td>Low Volume Directed Spray</td>
<td>5.0% to 10.0% by volume</td>
<td>Partial Coverage</td>
</tr>
</tbody>
</table>

*Where repeat applications are necessary do not exceed 8.0 quarts per acre per year.

*For low volume directed spray applications, coverage should be uniform with at least 50 percent of the foliage contacted. For best results, coverage of the top one-half of the plant is important.
Apply the product as follows to control or partially control the following woody brush and trees.

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

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

Alder / Blackberry / Dewberry / Honeysuckle / Oak, Post / Raspberry - For control, apply 4-1/2 to 6 pints per acre as a broadcast spray or as a 3/4 to 1-1/4 percent solution with hand-held equipment.

Aspen, Quaking / Hawthorn / Trumpet creeper - For control, apply 3 to 4-1/4 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/4 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 3/4 percent solution with hand-held equipment.

Broom: French, Scotch - For control, apply a 1-1/4 to 1-1/2 percent solution with hand-held equipment.

Buckwheat, California / Hasardia / Monkey Flower / Tobacco, Tree - For partial control of these species apply a 3/4 to 1-1/2 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 1-1/4 to 1-1/2 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 7-1/2 pints of this product per acre as a broadcast spray or as a 1 to 1-1/2 percent solution with hand-held equipment.

Coyote brush - For control, apply a 1-1/4 to 1-1/2 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 7-1/2 pints per acre as a broadcast spray.

Eucalyptus, bluegum - For control of eucalyptus resprouts, apply a 1-1/2 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 1-1/2 percent solution with hand-held equipment. For control, apply 6 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Kudzu** - For control, apply 6 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. For partial control, apply this product as a 1-1/2 percent solution with hand-held equipment. Repeat applications may be required to control weeds regenerating from underground parts or seeds. Where repeat applications are necessary, do not exceed 8 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 cautionary statements and all other information appearing on the labels of all herbicides used.

**INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS**

When applied as directed for “NON-CROP USES”, under conditions described, this product may be used to control the listed weeds. **Non-Crop Sites** - This product may be used to control the listed weeds in terrestrial noncrop sites and/or in aquatic sites within these areas:

- airfields; airports; alleys, lanes, trails & access roads; around commercial or industrial structures or outbuildings; around farm and ranch structures and outbuildings; around ornamental gardens; around ornamental trees & shrubs; bare ground; beaches; campgrounds; construction sites; ditch banks; drive-in theaters; driveways & ramps; dry ditches & canals; fences & fencerows; firebreaks; golf courses; gravel yards; habitat restoration & management areas; highways & roadsides (including aprons, medians, guardrails & right of ways); industrial plant sites; industrial areas; lumber yards; mulched areas; natural areas; paths and trails; parking areas; parks; paved areas; petroleum & other tank farms; pumping installations; pipeline, power, telephone & utility rights-of-way; power stations; preplant to turf & ornamental plants; railroad rights-of-way; recreation areas; refineries; resorts; schools;
portions of the “APPLICATION EQUIPMENT and TECHNIQUES” section of the label. Additionally, the 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.

Small Area Treatment With Hand-held Sprayers
Add 2.25 to 4.5 fluid ounces of this product plus 0.5 to 1 fluid ounce of nonionic surfactant to 1 gallon of clean water. Use the low rate for many grasses and annual weeds. Use the higher specified rate for control of perennials and brush. Use pump-up sprayer, backpack sprayer or other sprayer suitable for small areas. Adjust equipment to deliver a coarse spray pattern. USE OF HOSE-END SPRAYERS OR SPRINKLER-TYPE DEVICES MAY NOT BE USED.

TANK MIXTURES FOR NON-CROP 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.

This product PLUS Diuron
This product PLUS Krovar® I
This product PLUS Princep® Caliber®90, Simazine 4L, 80W or 90DF
This product PLUS Surflan®75W, Surflan AS
This product PLUS Ronstar®50WP
This product PLUS Spyder or Spyder Extra
This product PLUS ProClipse
This product PLUS Polaris AC Complete

When tank mixing with residual herbicides, add an nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label before preparing these tank mixtures. Read and carefully observe the label claims, precautionary statements, specified use rate 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 specified rates.

Annual Weeds
Apply 1.5 pints per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 2.25 pints per acre when weeds are more than 6 inches tall.

Perennial Weeds
For partial control of perennial weeds using these tank mixtures, apply 1.5 to 7.5 pints 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.

PREEMERGENCE WEED CONTROL
For preemergence weed control, refer to the individual product labels for specific non-crop 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.

CONIFER RELEASE
For release, apply at the end of the first growing season, except in California. Do not disturb vegetation of target weeds or trees 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. 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 2.25 to 3 pints 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 1.5 to 2.25 pints of this product per acre before any major leaf drop of deciduous species. Add 10 fluid ounces nonionic surfactant per 2 pints of this product. In Maine, up to 4.5 pints per acre may be used for the control of difficult weeds.

Note for Douglas fir release: Ensure that surfactant has been adequately tested for Douglas fir safety and follow manufacturer’s specifications for rate of application.
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 2-1/4 to 3 pints of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applied Biochemists does not recommend the use of a crop oil concentrate or MSO (methylated seed oil) based surfactant for use in southern conifer species release with this product. The addition of a tested and approved southern conifer release surfactant is recommended. 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
Cherry, Pin Prunus pensylvanica
Elm Ulmus spp.
Hawthorn Crataegus spp.
Maple, Red Acer rubra
Locust, Black Robinia pseudoacacia
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, or are in an active growth stage. Read and observe the cautionary 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.

WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS
This product is 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 re-infest 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. Addition of a nonionic surfactant at a rate of 10 percent by volume is recommended.
volume of total herbicide solution is recommended.

Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stands, 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 the freshly-cut surface immediately after cutting.** Delay in application may result in reduced performance. For best results, make applications 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.)
- **Coyote Brush** (*Baccharis consanguinea*)
- **Dogwood** (*Cornus* spp.)
- **Eucalyptus** (*Eucalyptus* spp.)
- **Hickory** (*Carya* spp.)
- **Madrone** (*Arbutus menziesii*)
- **Maple** (*Acer* spp.)
- **Oak** (*Quercus* spp.)
- **Poplar** (*Populus* spp.)
- **Reed, Giant** (*Arundo donax*)
- **Salt cedar** (*Tamarix* spp.)
- **Sweet gum** (*Liquidambar styraciflua*)
- **Sycamore** (*Platanus occidentalis*)
- **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. This is best achieved by applying a 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 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 these, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, make applications during periods of active growth and after full leaf expansion.

### Control

- **Oak** (*Quercus* spp.)
- **Sweetgum** (*Liquidambar styraciflua*)
- **Sycamore** (*Platanus occidentalis*)

### Suppression

- **Black Gum** (*Nyssa sylvatica*)
- **Dogwood** (*Cornus* spp.)
- **Hickory** (*Carya* spp.)
- **Maple, Red** (*Acer rubrum*)
- **Oak** (*Quercus* spp.)
- **Poplar** (*Populus* spp.)
- **Reed, Giant** (*Arundo donax*)
- **Salt cedar** (*Tamarix* spp.)
- **Sweet gum** (*Liquidambar styraciflua*)
- **Sycamore** (*Platanus occidentalis*)
- **Tan Oak** (*Lithocarpus densiflorus*)
- **Willow** (*Salix* spp.)

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

**INJECTION METHOD FOR CONTROL OF JAPANESE KNOTWEED**
(*Polygonum cuspidatum*)

**& GIANT KNOTWEED**
(*Polygonum polystachyum*)

**DIRECTIONS FOR USE**
It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This label must be in the possession of the user at the time of application. All applicable directions and precautions in this product’s label booklet must be followed. See the “PRODUCT INFORMATION” and “MIXING AND APPLICATION INSTRUCTIONS” sections of this product’s label booklet for essential product performance information.

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 5 mL of this product undiluted directly into the hollow stem just below a node. Make a hole suitable for injecting the herbicide 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, a hand-operated injection device designed to deliver repeated pre-measured doses from a supply reservoir is recommended. Commercially available dose measuring equipment may be adapted for this purpose. Calibrate the devise 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 AND BAHIA GRASS ON NONCROP SITES**

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 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.

**RELEASE OF ACTIVELY GROWING BERMUDAGRASS**

**NOTE:** USE ONLY ON SITES WHERE BAHIA GRASS 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.
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 3/4 to 2-1/4 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
- Trumpet creeper*
- 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 regrowth will occur under moist conditions. Do not make 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 of 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. Make applications 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.

AQUATIC 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 aquatic sites.

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

Wetland Sites - This product may be used in and around water (aquatic areas) and wetlands found in forestry and in power, telephone and pipeline rights-of-way sites including where these sites are adjacent to or surrounding domestic water supply reservoirs, supply streams, lakes and ponds. Read and observe the following before making applications in and around water.

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 in, around and to public water. Permits
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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store below 32°F or above 100°F. Store in original container in a well-ventilated area separately from fertilizer, feed, and food stuffs. Avoid cross-contamination with other pesticides.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this 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 1/4 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 other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.