

# FARMWORKS

GROUP 9 HERBICIDE

# AQUATIC HERBICIDE

53.8% Glyphosate

This product is a complete broad spectrum post emergence herbicide for weed control in aquatic sites.

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

KEEP OUT OF REACH OF CHILDREN  
**CAUTION**

See label booklet for DIRECTIONS FOR USE and additional PRECAUTIONARY STATEMENTS

NET CONTENTS: 1 GAL / 128 FL OZ / 3.79 L

**ACTIVE INGREDIENT:**

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

**OTHER INGREDIENTS:** ..... 46.2%

**TOTAL:** ..... 100.0%

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

EPA Reg. No. 84009-30

EPA Est. No. 084840-LA-001  
RM102417A 1217(01)

Manufactured For:  
**Ragan and Massey, Inc.**  
101 Ponchatoula Parkway  
Ponchatoula, LA 70454  
(800) 264-5281  
info@raganandmassey.com



# FARMWORKS® AQUATIC HERBICIDE

Read the entire label before using this product. Use only in accordance to label directions for use.

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

**This product is a complete broad spectrum post emergence herbicide for weed control in aquatic sites.**

## 1.0 INGREDIENTS AND FRONT PANEL STATEMENTS

### ACTIVE INGREDIENT:

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

**OTHER INGREDIENTS:** ..... 46.2%

**TOTAL:** ..... 100.0%

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

## KEEP OUT OF REACH OF CHILDREN CAUTION

See inside label booklet for complete DIRECTIONS FOR USE and additional PRECAUTIONARY STATEMENTS.

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Remove and wash contaminated clothing before reuse.

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

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

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

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

### USER SAFETY RECOMMENDATIONS

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

### 2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters and 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.

### 2.3 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.

### Manufactured for:

Ragan and Massey, Inc.,  
101 Ponchatoula Pkwy., Ponchatoula, LA 70454  
(800) 264-5281 • info@raganandmassey.com

**FarmWorks® is a registered trademark of Tangi-Pac, LLC.**  
EPA Reg. No. 84009-30      EPA Est. No. 084840-LA-001

## TABLE OF CONTENTS

1.0	INGREDIENTS AND FRONT PANEL STATEMENTS .....	1
2.0	PRECAUTIONARY STATEMENTS .....	1
2.1	HAZARDS TO HUMANS AND DOMESTIC ANIMALS	1
2.2	ENVIRONMENTAL HAZARDS	1
2.3	PHYSICAL OR CHEMICAL HAZARDS	1
2.4	DIRECTIONS FOR USE	3
3.0	PRODUCT INFORMATION (How this Product Works) .....	3
3.1	WEED RESISTANCE MANAGEMENT	4
3.2	MANAGEMENT OF GLYPHOSATE-RESISTANT BIOTYPES	4
4.0	MIXING .....	5
4.1	MIXING WITH WATER	5
4.2	TANK MIXTURES	5
4.3	TANK MIXING PROCEDURES	5
4.4	MIXING PERCENT SOLUTIONS	6
4.5	SURFACTANTS	6
4.6	COLORANTS OR DYES	6
4.7	DRIFT REDUCTION ADDITIVES	6
5.0	APPLICATION EQUIPMENT AND TECHNIQUES .....	6
5.1	AERIAL EQUIPMENT, SPRAY DRIFT MANAGEMENT, AND APPLICATION RESTRICTIONS	7
5.2	GROUND BROADCAST EQUIPMENT	8
5.3	HAND-HELD EQUIPMENT	8
6.0	SITE AND USE DIRECTIONS .....	8
6.1	AQUATIC SITES	8
7.0	WEEDS CONTROLLED .....	10
7.1	ANNUAL WEEDS	10
7.2	PERENNIAL WEEDS	11
7.3	WOODY BRUSH AND TREES	14
8.0	STORAGE AND DISPOSAL .....	16
9.0	WARRANTY DISCLAIMER, INHERENT RISKS OF USE, LIMITATION OF REMEDIES .....	16

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

#### AGRICULTURAL USE REQUIREMENTS

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

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

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

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

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

### 3.0

## PRODUCT INFORMATION (HOW THIS PRODUCT WORKS)

**Product Description:** This product is a post-emergent, systemic herbicide with no soil residual activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid and may be applied through standard equipment after dilution and mixing with water or other carriers according to label directions. This product requires the use of a nonionic surfactant. See the "SURFACTANTS" section of this label for further directions on the use of surfactants, and see the "MIXING" section of this label for directions regarding other additives.

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

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

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. See the "WEEDS CONTROLLED" section of this label for specific weed rates. Always use the higher product application rate in the specified range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control may result from treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions. For best results, spray coverage must be uniform and complete. Do not spray foliage to the point of run-off.

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

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

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

**No Soil Activity:** Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow.

**Biological Degradation:** Degradation of this product is primarily a biological process carried out by soil microbes.

**Tank Mixing:** This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

To the extent consistent with applicable law, the 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 listed in this label. Mixing this product with herbicides or other materials not listed on this label may result in reduced performance.

**Grazing Restrictions:** Use this product to treat undesirable vegetation in rights-of-way that pass through pastures, rangeland and forestry sites that are being grazed. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. There are no grazing restrictions for the following labeled applications of this product:

- Where the spray can be directed onto undesirable woody brush and trees, such as in handgun spray-to-wet or low volume directed spray treatments.
  - For tree injection or frill applications and for cut stump treatments.
- For broadcast applications, observe the following restrictions:
- For application rates of greater than 6 but not to exceed 10 quarts per acre, do not treat more than 15 percent of the available grazing area.
  - For application rates that do not exceed 6 quarts per acre, do not treat more than 25 percent of the available grazing area.
  - All restrictions outlined above apply to lactating dairy animals. No other restrictions apply to lactating dairy animals.

**THESE DIRECTIONS DO NOT APPLY TO RANGELAND OUTSIDE OF RIGHTS-OF-WAY.**

**Maximum Application Rates:** The maximum application or use-rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or as tank mixtures, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. The combined total of all treatments must not exceed 8 quarts of this product (8 pounds of glyphosate acid) per acre per year. See the "INGREDIENTS AND FRONT PANEL STATEMENTS" section of this label for necessary product information

#### ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY™ CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT. 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, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combination of pressure and nozzle type that will result in splatter or fine particles (mist) that are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

**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.**

### 3.1 WEED RESISTANCE MANAGEMENT

Based on the mode of action classification system of the Weed Science Society of America, Glyphosate (active ingredient) is a Group 9 herbicide. Group 9 herbicides may contain plants from any weed population that can be naturally resistant to glyphosate. These weed-resistant plants can be effectively controlled using a different Group herbicide or by using other means such as cultural or mechanical practices.

#### Weed Resistance Management Recommendations

Glyphosate resistant biotypes can be minimized by utilizing the following weed resistance management recommendations:

1. Scout your application site before and after herbicide applications.
2. Control weeds early when they are relatively small.
3. Incorporate other herbicides and cultural practices or mechanical practices as part of your weed control system where appropriate.
4. Use the labeled rate for the most difficult to control weed in the site. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism) or with tank mixtures that encourage rates of this product below those specified on this label.
5. Control weed escapes and prevent weeds from setting seeds.
6. Clean equipment before moving from site to site to minimize spread of weed seed.
7. Use new commercial seed as free of weed seed as possible.
8. Any incidence of repeated non-performance of this product on a particular weed must be reported to any Ragan and Massey, Inc. representative, your county extension agent, or to the local retailer.

### 3.2 MANAGEMENT OF GLYPHOSATE-RESISTANT BIOTYPES

**NOTE:** Appropriate testing is critical in order to confirm weed resistance to glyphosate. Contact your Ragan and Massey, Inc. representative, county extension agent, or local retailer to determine if resistance has been confirmed to any particular weed biotype in your area.

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

The following good weed management practices are recommended to reduce the spread of confirmed glyphosate resistant biotypes:

1. If a naturally occurring resistant biotype is present at your site, this product may be tank mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
2. Cultural and mechanical control practices may also be used as appropriate.
3. Scout treated sites after herbicide applications and control escapes of resistant biotypes before they set seed.
4. Thoroughly clean equipment before leaving sites known to contain resistant biotypes.

**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.**

Spray solutions of this product must be mixed, stored, and applied using only stainless steel, aluminum, fiberglass, plastic, or plastic-lined steel containers. DO NOT MIX, STORE, OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. Apply these spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes. Do not apply when wind or other conditions favor drift. Hand-held applications must be properly directed to avoid spraying desirable plants.

**PRECAUTION:** Reduced results may occur if water containing soil is used, such as water from ponds and unlined ditches that is not clear. Eliminate any risk of siphoning the contents of the tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by state or local authorities.

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

#### 4.1 MIXING WITH WATER

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

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

**For larger tank sprayers (greater than 5 gal. capacity):** Fill the mixing or spray tank one-half full with water and start agitation. If adding Ammonium Sulfate, ensure that it is completely dissolved before proceeding. Add the labeled amount of this product using a circular motion while pouring. Continue filling the spray tank with water and ensure thorough mixing.

Use caution to avoid siphoning back into the carrier source. Use approved anti-back siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate bypass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

#### 4.2 TANK MIXTURES

This product does not provide residual weed control. This product can be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum, or an alternate mode of action. Always read the label directions for all products in the tank mixture.

When this product is tank-mixed with other products, refer to these product labels for approved sites and application rates. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Any labeled rate of this product may be used in a tank mix.

To the extent consistent with applicable law, the 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 listed in this label. Mixing this product with

herbicides or other materials not specified on this label may result in reduced performance.

This product provides control of the emerged weeds listed on this label. When applied as a tank mixture, the following herbicides will provide preemergence and/or postemergence control of the weeds listed in the individual product labels.

This product can be tank-mixed with the following products. Any labeled rate of this product can be used in a tank mixture with these products. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Tank-Mix Products

- |                      |                           |                       |                         |
|----------------------|---------------------------|-----------------------|-------------------------|
| • 2,4-D              | • Garlon 4                | • Oust XP             | • Ronstar               |
| • Arsenal            | • Hyvar X                 | • Oust XP + 2,4-D     | • Ronstar 50 WP         |
| • Banvel             | • Hyvar X + 2,4-D         | • Oust XP + Garlon 3A | • Sahara                |
| • Barricade 65WG     | • Hyvar X + Garlon 3A     | • Oust XP + Garlon 4  | • Simazine              |
| • Certainty          | • Hyvar X + Garlon 4      | • Outrider            | • Spike 80W             |
| • diuron + 2,4-D     | • Karmex DF               | • Pendulum 3.3EC      | • Spike 80W + 2,4-D     |
| • diuron + Garlon 3A | • Krovar I DF             | • Pendulum WDG        | • Spike 80W + Garlon 3A |
| • diuron + Garlon 4  | • Krovar I DF + Garlon 3A | • Plateau             | • Spike 80W + Garlon 4  |
| • Endurance          | • Krovar I DF + Garlon 4  | • Princep DF          | • Surfian               |
| • Escort             | • Krovar I DF + 2,4-D     | • Princep Liquid      | • Telar                 |

#### 4.3 TANK MIXING PROCEDURES

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the specified amount of this product. Mix labeled tank mixtures of this product with water as follows:

- Place a 20 to 35 mesh screen or wetting basket over filling port.
- Through the screen, fill the spray tank one-half full with water and start agitation.
- Add the individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water-soluble liquid, and nonionic surfactant.
- Add remaining quantity of water and continue agitation.

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

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers must be no finer than 50 mesh. Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

**4.4****MIXING PERCENT SOLUTIONS**

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

<b>Spray Solution</b>	<b>AMOUNT OF PRODUCT</b>					
<b>Desired Volume</b>	<b>0.5%</b>	<b>0.75%</b>	<b>1.0%</b>	<b>1.5%</b>	<b>4.0%</b>	<b>8.0%</b>
1 Gallon	0.7 oz.	1.0 oz.	1.3 oz.	2.0 oz.	5.0 oz.	10.0 oz.
25 Gallons	1.0 pt.	1.5 pt.	1.0 qt.	1.5 qt.	4.0 qt.	2.0 gal.
100 Gallons	2.0 qt.	3.0 qt.	1.0 gal.	1.5 gal.	4.0 gal.	8.0 gal.

2 tablespoons = 1 fluid ounce

Above percentages are on a weight-to-weight basis with water as 8.34 pounds/gallon.

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

**4.5****SURFACTANTS**

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

Always read and follow the surfactant manufacturer's label instructions for best results. Carefully observe all precautionary statements and other information in the surfactant label. When applied as directed under the conditions described, this product controls annual and perennial weeds listed in the label.

Do not reduce rates of this product when adding a surfactant. DO NOT add buffering agents or pH adjusting agents to the spray solution when this product is the only pesticide used. When applying this product in ROUND-UP READY® crops, limit nonionic surfactant-use to two quarts per 100 gallons of spray solution. Crop injury and reduced yield may result when use-rates of nonionic surfactants exceed two quarts per 100 gallons of spray solution.

**4.6****COLORANTS OR DYES**

Approved colorants or marking dyes may be added to this product. At lower labeled rates or dilutions, colorants or dyes used in spray solutions of this product may reduce performance. Use colorants or dyes according to the manufacturer's instructions.

**4.7****DRIFT REDUCTION ADDITIVES**

Drift reduction additives may be used with all equipment types, except wiper applicators, sponge bars and Controlled Droplet applicator (CDA) equipment. When a drift reduction additive is used, read and carefully observe the precautionary statements and all other information appearing on the additive label. The use of drift reduction additives can affect spray coverage which may result in reduced performance.

**5.0****APPLICATION EQUIPMENT AND TECHNIQUES**

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

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

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

**SPRAY DRIFT MANAGEMENT**

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

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

DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

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.

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

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

**IN CALIFORNIA, DO NOT APPLY THIS PRODUCT PLUS DICAMBA AND/OR 2,4-D TANK MIXTURES BY AIR.**

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

#### AERIAL SPRAY DRIFT MANAGEMENT

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

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

#### Importance of droplet size

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

#### Controlling droplet size

**Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.

**Pressure:** Use the lower spray pressures specified for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of Nozzles:** Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

**Nozzle Type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

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

**Application Height:** Applications 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 evaporate 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 sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Sensitive Areas

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

#### Aircraft Maintenance

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART.

The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear is most susceptible.

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



## FOR AERIAL APPLICATIONS IN CALIFORNIA ONLY, Including Fresno County, CA

When applied as directed under the conditions described, this product controls annual and perennial weeds and woody brush and trees listed in this product label. See the "WEEDS CONTROLLED" section of the label for specific rates.

### Aquatic and Other Sites

Do not spray open bodies of water where woody brush, trees, and herbaceous weeds do not exist. The maximum application rate of 7.5 pints per acre must not be exceeded in a single over-water broadcast application except as follows, where any labeled rate may be applied:

- Stream crossings in utility rights-of-way
- Where applications will result in less than 20 percent of the total water area being treated. Aerial applications of this product are allowed in the following situations:
  - Forestry sites
  - Prior to the emergence or transplanting of labeled crops
  - Aid to burning for establishment and maintenance of fuel breaks
  - Establishing fire perimeters and black lines
  - Aid to prescribed burning
  - Along fire roads

### 5.2 GROUND BROADCAST EQUIPMENT

For broadcast ground applications, unless otherwise specified use this product at the rate of 1.5 to 3 pints per acre for annual weeds, 3 to 7.5 pints per acre for perennial weeds and 3 to 7.5 pints per acre for woody brush and trees. Use the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume must be increased within the listed range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat spray nozzles. Check for even distribution of spray droplets.

### 5.3 HAND-HELD EQUIPMENT

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage must be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only. For control of weeds listed in the "ANNUAL WEEDS" section, apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall or unless otherwise specified, use a 1 percent solution. For best results, use a 1.5 percent solution on harder to control perennials, woody vines, brush and trees. Make applications to annuals prior to seedhead emergence in grasses or bud formation in broadleaf weeds.

## 6.0

## SITE AND USE DIRECTIONS

This product can be used to control weeds, woody brush and trees in aquatic sites.

### 6.1 AQUATIC SITES

This product can 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, and wastewater treatment facilities.

For low volume directed spray applications, use a 4 to 8 percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage must be uniform with at least 50 to 75 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts. 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. For flat-fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop.

Unless otherwise specified, use the rates listed in the following "APPLICATION RATES" table for various methods of foliar application using high volume, backpack, knapsack and similar types of hand-held equipment. When used according to label directions, this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the "WEEDS CONTROLLED" section of this label.

### APPLICATION RATES

APPLICATION	AMOUNT OF PRODUCT	SPRAY VOLUME Gallons/Acre
<b>SPRAY-TO-WET</b>		
Handgun, or Backpack	0.5 to 1.5% by volume	Spray-to-wet*
<b>LOW VOLUME DIRECTED SPRAY</b>		
Backpack	4.0 to 8.0% by volume	15 to 25**
Modified High Volume	1.5 to 3.0% by volume	40 to 60**

\*For applications made on a spray-to-wet basis, spray coverage must be uniform and complete. Do not spray to the point of runoff.

\*\*Low-volume directed spray applications with backpacks work best when treating weeds and brush less than 10 feet tall. For taller weeds and brush, high volume handguns can be modified by reducing nozzle size and spray pressure to produce a low volume directed spray.

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

Consult your 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.

**Do not apply this product directly to water within 0.5 mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 0.5 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 0.5 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 must 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 in or 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 retreat 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 7.5 pints per acre must not be exceeded in any single broadcast application that is being made over water except as follows, where any labeled rate may be applied:

- Stream crossings in utility rights-of-way
- Where applications will result in less than 20 percent of the total water area being treated.

When emergent 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.

#### **For Control of Cordgrass (*Spartina spp.*)**

The presence of debris and silt on the surface of cordgrass plants will reduce product performance. It may be necessary to wash targeted plants prior to application to improve herbicide uptake. Where cordgrass has been cut or mowed prior to application, allow significant regrowth before application to ensure adequate interception and uptake of the herbicide solution. Rainfall within 2 hours or immersion within 4 hours after application may reduce effectiveness.

Prior to application, survey the areas to be treated to determine if shellfish beds exist within the intended treatment area. Wait either until shellfish have been harvested before application is made or do not harvest shellfish for 14 days following treatment.

Add 1 to 2 quarts or more of a nonionic surfactant or other adjuvant approved for use on aquatic sites and compatible with this product per 100 gallons of spray solution for broadcast applications (ground or air) and when using optical sensing application equipment.

Do not apply this product through any type of irrigation system

## **APPLICATION**

Under ideal application conditions, that is, where silt and debris are not present on plant surfaces, good spray coverage is achievable, target plants are actively growing and labeled rates and application volumes are used, allow at least 4 hours drying time before plants are covered by tidewater. Where one or more of these conditions are not met, schedule applications to allow at least 5 hours drying time before plants are covered by tidewater. Do not apply when wind speed at the application site exceeds 10 miles per hour.

**Broadcast Application (Ground):** Apply 2 to 8 quarts of this herbicide in 5 to 100 gallons of spray solution per acre. For best results, complete coverage of cordgrass clumps is required.

**Broadcast Application (Ground/Optical Sensing Application Equipment):** Apply 2 to 8 quarts of this product in 5 to 100 gallons of spray solution per acre using equipment designed and calibrated to deliver spray solution only when cordgrass plants are present and detected by optical sensors. For best results, complete coverage of cordgrass clumps is required.

**Hand-Held Backpack or High-volume Equipment:** Apply a 5 to 8 percent solution of this product. Ensure that complete coverage of cordgrass clumps is achieved. Do not spray to the point of runoff.

**Broadcast Application (Air):** Apply 2 to 8 quarts of this product in 5 to 10 gallons of spray solution per acre. Maintain at least a 50-foot buffer between commercial shellfish beds and treated areas. The potential for spray drift is dependent upon weather- and equipment-related factors. The applicator must be familiar with local wind patterns and monitor and record temperature and wind speed prior to and periodically during application. Schedule application in order to allow at least 5 hours before treated plants are covered by tidewater.

#### **For Foliar and Broadcast Treatment of Japanese Knotweed**

For control of Japanese knotweed (*Polygonum cuspidatum*), apply this product as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70 percent active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 3 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

#### **For Foliar and Broadcast Treatment of Oriental Bittersweet**

For control of Oriental bittersweet (*Celastrus orbiculatus*), apply this product as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70 percent active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast application, apply 2.25 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

**TANK MIXTURES:** Tank mixtures of this product plus 2,4-D amine may be used to increase the spectrum of vegetation controlled in aquatic sites. Use 1.5 to 2 pints of this product plus the labeled rate of 2,4-D

amine labeled for aquatic sites for control of annual weeds. Use 3 to 7.5 pints of this product plus the labeled rate of 2,4-D amine labeled for aquatic sites for control or partial control of perennial weeds, woody brush and trees. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Mix in the

following sequence: Fill sprayer tank one-half full with water, add this product, then 2,4-D amine, and finally a surfactant. Fill sprayer tank to final volume of water.

**RESTRICTION:** DO NOT MIX THIS PRODUCT AND 2,4-D AMINE CONCENTRATES WITHOUT WATER CARRIER. DO NOT MIX THIS PRODUCT AND 2,4-D AMINE IN BYPASS INJECTOR-TYPE SPRAY EQUIPMENT.

## 7.0

## WEEDS CONTROLLED

Always use the higher labeled rate of this product per acre within the listed range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area. Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for application rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, use this product at 4.5 to 8 quarts per acre for enhanced results.

### 7.1 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, weeds may be mowed, tilled, or burned. Use 1.5 pints per acre if weeds are less than 6 inches in height or runner length and 1 to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead emergence in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 0.75 to 1.5 percent solution. Use the higher labeled rate for tough-to-control species or for weeds over 24 inches tall.

#### WEED SPECIES

- |                       |  |   |                                       |                            |                        |
|-----------------------|--|---|---------------------------------------|----------------------------|------------------------|
| • Annoda, spurred     | • Cocklebur*                                     | • Foxtail*  | • Mayweed                             | • Ragweed, common*         | • Spanishneedles***    |
| • Balsamapple**       | • Copperleaf, hophornbeam                        | • Goatgrass, jointed*                               | • Medusahead*                         | • Ragweed, giant           | • Speedwell, purslane* |
| • Barley*             | • Corn*  | • Goosegrass  | • Morningglory ( <i>Ipomoea</i> spp.) | • Red rice                 | • Sprangletop*         |
| • Barley, little*     | • Corn speedwell*                                | • Grain sorghum (milo)*                             | • Mustard, blue*                      | • Rocket, London*          | • Spurge, annual       |
| • Barnyardgrass*      | • Crabgrass*                                     | • Groundsel, common*                                | • Mustard, tansy*                     | • Rocket, Yellow Rye*      | • Spurge, prostrate*   |
| • Bassia, fivehook    | • Cupgrass, woolly*                              | • Hemp sesbania                                     | • Mustard, tumble*                    | • Russian thistle          | • Spurge, spotted*     |
| • Bittercress*        | • Dwarf dandelion*                               | • Henbit  | • Mustard, wild*                      | • Rye*                     | • Spurry, umbrell*     |
| • Black nightshade*   | • Eastern mannagrass*                            | • Horseweed/ Marestail ( <i>Conyza canadensis</i> ) | • Nightshade, black*                  | • Ryegrass*                | • Starthistle, yellow  |
| • Bluegrass, annual*  | • Eclipta*                                       | • Itchgrass*  | • Oats                                | • Sandbur, field*          | • Stinkgrass*          |
| • Bluegrass, bulbous* | • Fall panicum*                                  | • Johnsongrass, seeding                             | • Panicum, browntop*                  | • Sesbania, hemp           | • Sunflower*           |
| • Brome, downy*       | • Falsedandelion*                                | • Junglerice  | • Panicum, fall*                      | • Shattercane*             | • Teaweed/Prickly sida |
| • Brome, Japanese*    | • Falseflix, smallseed*                          | • Knotweed  | • Panicum, Texas*                     | • Shepherd's-purse*        | • Texas panicum*       |
| • Browntop panicum*   | • Fiddleneck                                     | • Kochia  | • Pennycress, field*                  | • Sicklepod                | • Velvetleaf Wheat*    |
| • Broomsedge          | • Field pennycress*                              | • Lamb's-quarters*                                  | • Pepperweed, Virginia*               | • Signalgrass, broadleaf*  | • Virginia copperleaf  |
| • Buttercup*          | • Filaree  | • Lettuce, prickly*                                 | • Pigweed*                            | • Smartweed, ladythumb*    | • Wheat* pepperweed*   |
| • Carolina foxtail*   | • Fleabane, annual*                              | • Little barley*                                    | • Plains/Tickseed coreopsis*          | • Smartweed, Pennsylvania* | • Wild oats*           |
| • Carolina geranium   | • Fleabane, hairy ( <i>Conyza bonariensis</i> )* | • London rocket*                                    | • Prickly lettuce*                    | • Sorghum, grain (milo)*   | • Witchgrass*          |
| • Castor bean         | • Fleabane, rough*                               | • Mannagrass, eastern*                              | • Puncturevine                        | • Sowthistle, annual       | • Woolly cupgrass*     |
| • Cheatgrass*         | • Florida pusley                                 |   | • Purslane, common                    |                            | • Yellow rocket        |

\*When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 12 ounces of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

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

\*\*\* Apply 3 pints of this product per acre.

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (boot stage in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the listed range.

- Apply when target plants are actively growing. Do not treat when target plants are under drought stress.
- Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.
- When using hand-held equipment for low volume directed spot treatments, apply a 4 to 8 percent solution of this product.
- Allow 7 or more days after application before tillage or mowing. 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 seeds.

WEED SPECIES	RATE (QT/A)	HAND-HELD % SOLUTION
Alfalfa*	0.7	1.5%
Alligatorweed*	3.0	1.3%
Anise (fennel)	1.5 – 3.0	1.0 – 1.5%
Bahiagrass	2.3 – 3.75	1.5%
Beachgrass, European ( <i>Ammophila arenaria</i> )	--	3.5%
Bentgrass*	1.0	1.5%
Bermudagrass	4.0	1.5%
Bermudagrass, water (knotgrass)	1.0	1.5%
Bindweed, field	2.3 – 3.75	1.5%
Bluegrass, Kentucky	1.5 – 2.3	0.75%
Blueweed, Texas	2.3 – 3.75	1.5%
Brackenfern	2.3 – 3.0	0.75 – 1.0%
Bromegrass, smooth	1.5 – 2.3	0.75%
Bursage, woolly-leaf	--	1.5%
Canarygrass, reed	1.5 – 2.3	0.75%
Cattail	2.3 – 3.75	0.75%
Clover; red, white	2.3 – 3.75	1.5%
Cogongrass	2.3 – 3.75	1.5%
Cordgrass	See Section 6.1	2.0 – 8.0%
Cutgrass, giant*	3.0	1.0%
Dallisgrass	2.3 – 3.75	1.5%
Dandelion	2.3 – 3.75	1.5%
Dock, curly	2.3 – 3.75	1.5%
Dogbane, hemp	3.0	1.5%
Fescue (except tall)	2.3 – 3.75	1.5%
Fescue tall	2.3	1.0%
German ivy	1.5 – 2.3	0.75 – 1.5%
Guineagrass	2.3	0.75%

(continued)

WEED SPECIES	RATE (QT/A)	HAND-HELD % SOLUTION
Horsenettle	2.3 – 3.75	1.5%
Horseradish	3.0	1.5%
Iceland	1.5	1.5%
Jerusalem artichoke	2.3 – 3.75	1.5%
Johnsongrass	1.5 – 2.3	0.75%
Kikuyugrass	1.5 – 2.3	0.75%
Knapweed	3.0	1.5%
Knotweed; Bohemian, Giant, Japanese ( <i>Polygonum bohemicum</i> , <i>P.</i> <i>sachalinense</i> , and <i>P. cuspidatum</i> )	See text after this table	
Lantana	---	0.75 – 1.0%
Lespedeza	2.3 – 3.75	1.5%
Loosestrife, purple	2.0	1.0 – 1.5%
Lotus, American	2.0	0.75%
Maidencane	3.0	0.75%
Milkweed, common	2.3	1.5%
Muhly, wirestem	1.5 – 2.3	0.75%
Mullein, common	2.3 – 3.75	1.5%
Napierrgrass	2.3 – 3.75	1.5%
Nightshade, silverleaf	2.3 – 3.75	1.5%
Nutsedge; purple, yellow	2.3	0.75%
Orchardgrass	1.5 – 2.3	0.75%
Pampasgrass	2.3 – 3.75	1.5%
Paragrass	3.0	0.75%
Pepperweed, perennial	3.0	1.5%
Phragmites*	2.0 – 3.75	0.75 – 1.5%
Poison hemlock	1.5 – 3.0	0.75 – 1.5%
Quackgrass	1.5 – 2.3	0.75%
Redvine*	1.5	1.5%
Reed, giant	3.0 – 3.75	1.5%

(continued)

WEED SPECIES	RATE (QT/A)	HAND-HELD % SOLUTION
Reygrass, perennial	1.5 – 2.3	0.75%
Salvinia, giant	3.0 – 3.75	2.0%
Smartweed, swamp	2.3 – 3.75	1.5%
Spatterdock	3.0	0.75%
Spurge, leafy*	---	1.5%
Starthistle, yellow	---	1.5%
Sweet potato, wild*	---	1.5%
Thistle, artichoke	1.5 – 2.3	2.0%
Thistle, Canada	1.5 – 2.3	1.5%
Timothy	1.5 – 2.3	1.5%
Torpedograss*	3.0 – 3.75	0.75 – 1.5%
Trumpet creeper*	1.5 – 2.3	1.5%
Tules, common	---	1.5%
Vaseygrass	2.3 – 3.75	1.5%
Velvetgrass	2.3 – 3.75	1.5%
Waterhyacinth	2.5 – 3.0	0.75 – 1.0%
Waterlettuce	---	0.75 – 1.0%
Waterprimrose	---	0.75%
Wheatgrass, western	1.5 – 2.3	0.75%

\*Partial control

**Alligatorweed** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1.3 percent solution with a 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.

**Beachgrass, European (*Ammophila arenaria*)** – Apply an 8-percent solution of this product plus 0.5 to 1.5 percent nonionic surfactant on a low-volume spray-to-wet basis. Best results are obtained when applications are made when European beachgrass is actively growing through the boot to the full heading stages of growth. Make applications prior to the loss of more than 50% green leaf color in the fall. Repeat applications may be necessary to treat skips. Monitor treated areas prior to reseeding of desirable vegetation. For selective control of European beachgrass with wiper application, apply a 33.3-percent solution of this product plus 1 to 2.5-percent nonionic surfactant during active growth. Avoid contact of herbicide solution with desirable vegetation. Wiping the plants in opposite directions may improve performance. Maximizing the amount of individual leaf tissue contact with the wiping equipment will result in optimal performance.

**Bermudagrass** – Apply 3.75 quarts of this product per acre as a broadcast spray or as a 1.5 percent solution with hand-held equipment. Apply when target plants are actively growing and when seedheads appear.

**Bindweed, field / Silverleaf Nightshade / Texas Blueweed** – Apply 3 to 3.75 quarts of this product per acre as a broadcast spray west of the Mississippi River and 2.3 to 3 quarts of this product per acre east of the Mississippi River. With hand-held equipment, use a 1.5 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.

**Bluegrass, Kentucky** – Apply when most target plants 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.

**Brackenfern** – Apply 2.3 to 3 quarts of this product per acre as a broadcast spray or as a 0.75 to 1 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Cattail** – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75 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 2.3 to 3.75 quarts of this product per acre as a broadcast spray. Apply when cogon-grass 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** – Refer to Section 6.1, “AQUATIC SITES”, of this label for additional directions. Apply as a 2 to 8-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. Ensure complete coverage of clumps but do not spray to the point of run-off.

**Cutgrass, giant** – Apply 3 quarts 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 / Knawweed / Horseradish** – Apply 3 quarts of this product per acre as a broadcast spray or as a 1.5 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 2.3 quarts 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 2.3 quarts of this product per acre as a broadcast spray or as a 0.75 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 / Bromegrass, smooth / Canarygrass, red / Orchardgrass** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75 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.

**Knottedweed; Bohemian, Giant, Japanese (*Polygonum bohemicum*, *P. sachalinense*, and *P. cuspidatum*)** – For cut stem treatment, cut stems cleanly just below the 2nd or 3rd node above the ground. Immediately apply 0.36 fluid ounce (10 mL) of a 50-percent solution of this product into the “well” or remaining internode. Ensure that removed upper plant material is carefully gathered and discarded so that it will not contact soil and regenerate plants from sprouting buds. Use a bio-barrier such as cardboard, plywood, or plastic sheeting to shield treatment of desirable foliage. The combined total for all treatments must not exceed 8 quarts per acre. At 10 mL of a 50-percent solution, approximately 1500 stems per acre may be treated.

**Lantana** – Apply this product as a 0.75 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 2 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 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 2 quarts of this product per acre as a broadcast spray or as a 0.75 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 3 quarts of this product per acre as a broadcast spray or as a 0.75 percent solution using 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 2.3 quarts of this product per acre as a broadcast spray or as a 1.5 percent solution using 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 2.3 quarts of this product per acre as a broadcast spray, or as a 0.75 percent solution using hand-held 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.

**Phragmites** – For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 3.75 quarts per acre as a broadcast spray or apply as a 1.5 percent solution with hand-held equipment. In other areas of the U.S., apply 2 to 3 quarts per acre as a broadcast spray or apply a 0.75 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.

**Poison Hemlock** – Apply 1.5 to 3 quarts per acre as a broadcast spray or as a 0.75 to 1.5 percent solution with hand-held equipment.

**Quackgrass / Kikuyugrass / Muhly, wirestem** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 0.75 percent solution with hand-held equipment when most quackgrass or wirestem mulhly 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** – Apply 3 to 3.75 quarts per acre as a broadcast spray or as a 1.5 percent solution with hand-held equipment when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

**Ryegrass, perennial** – Apply 1.5 to 2.3 quarts per acre as a broadcast spray or as a 0.75 percent solution with hand-held equipment. Apply when most target plants 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.

**Salvinia, giant** – Apply as a 2.0-percent v/v spray-to-wet solution with 0.5 to 2.0 percent v/v of a nonionic surfactant containing at least 70% active ingredient. For broadcast applications, apply 3 to 3.75 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment. Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage underwater.

**Spatterdock** – Apply 3 quarts of this product per acre as a broadcast spray or as a 0.75 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 1.5 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 bloom stage of growth before retreatment.

**Thistle; Canada, artichoke** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 1.5 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.

**Timothy** – Apply 1.5 to 2.3 quarts of this product per acre as a broadcast spray or as a 1.5 percent solution with hand-held equipment. Apply when most target plants 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.

**Torpedograss** – Apply 3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75 to 1.5 percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower labeled rates under terrestrial conditions, and the higher labeled 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 1.5 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 2.5 to 3 quarts of this product per acre as a broadcast spray or apply a 0.75 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 complete necrosis and decomposition, usually occurring within 60 to 90 days. Use the higher labeled rates when more rapid visual effects are desired.

**Waterlettuce** – For control, apply a 0.75 to 1 percent solution of this product with hand-held equipment to actively growing plants. Use the higher labeled 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 0.75 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.

**Wheatgrass, western** – Apply when most target plants 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.

**Other perennials listed in this label** – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75 to 1.5 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.

### 7.3 WOODY BRUSH AND TREES

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

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

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 4 to 8 percent solution of this product.

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.

WEED SPECIES	BROADCAST RATE (QT/A)	HAND-HELD SPRAY-TO-WET % SOLUTION
Alder	2.3 – 3.0	0.75 – 1.2%
Ash*	1.5 – 3.75	0.75 – 1.5%
Aspen, quaking	1.5 – 2.3	0.75 – 1.2%
Bearclover (Bearnat)*	1.5 – 3.75	0.75 – 1.5%
Beech*	1.5 – 3.75	0.75 – 1.5%
Birch	1.5	0.75%
Blackberry	2.3 – 3.0	0.75 – 1.2%
Blackgum	1.5 – 3.75	0.75 – 1.2%
Bracken	1.5 – 3.75	0.75 – 1.5%
Broom; French, Scotch	1.5 – 3.75	1.2 – 1.5%
Buckwheat, California*	1.5 – 3.0	0.75 – 1.5%
Cascara*	1.5 – 3.75	0.75 – 1.5%
Castorbean	1.5 – 3.75	1.5%
Catsclaw*	---	1.2 – 1.5%
For partial control, apply when at least 50 percent of the new leaves are fully developed		
Ceanothus*	1.5 – 3.75	0.75 – 1.5%
Chamise*	1.5 – 3.75	0.75%

(continued)

WEED SPECIES	BROADCAST RATE (QT/A)	HAND-HELD SPRAY-TO-WET % SOLUTION
Cherry; bitter, black pin	1.5 – 3.75	1.0 – 1.5%
Cottonwood, eastern	1.5 – 3.75	0.75 – 1.5%
Coyote brush	2.3 – 3.0	1.2 – 1.5%
For partial control, apply when at least 50 percent of the new leaves are fully developed		
Cypress; swamp, bald	1.5 – 3.75	0.75 – 1.5%
Deerweed	1.5 – 3.75	0.75 – 1.5%
Dewberry	2.3 – 3.0	0.75 – 1.2
Dogwood*	3.0 – 3.75	0.75 – 1.5%
Elderberry	1.5	0.75 – 1.5%
Elm*	1.5 – 3.75	0.75 – 1.5%
Eucalyptus	---	0.75 – 1.5%
Gallberry	1.5 – 3.75	0.75 – 1.5%
Hackberry, western	1.5 – 3.75	0.75 – 1.5%
Gorse*	1.5 – 3.75	0.75 – 1.5%
Hasardia*	1.5 – 3.0	0.75 – 1.5%
Hawthorn	1.5 – 2.3	0.75 – 1.2%
Hazel	1.5	0.75%

(continued)

WEED SPECIES	BROADCAST RATE (QT/A)	HAND-HELD SPRAY-TO-WET % SOLUTION
Hickory*	3.0 – 3.75	1.0 – 2.0%
Honeysuckle	2.3 – 3.0	0.75 – 1.2%
Hornbeam, American*	1.5 – 3.75	0.75 – 1.5%
Huckleberry	1.5 – 3.75	0.75 – 1.5%
Ivy, Poison	3.0 – 3.75	1.5%
Kudzu	3.0	1.5%
Locust, black*	1.5 – 3.0	0.75 – 1.5%
Madrone resprouts*	---	1.5%
Magnolia, sweetbay	1.5 – 3.75	0.75 – 1.5%
Manzanita*	1.5 – 3.75	0.75 – 1.5%
Maple, red	1.0 – 3.75	0.75 – 1.2%
For control, apply a 0.75- to 1.2-percent solution of this product using a handheld sprayer when leaves are fully developed. For partial control, apply 1 to 3.75 quarts per acre as a broadcast application.		
Maple, sugar	---	0.75 – 1.2%
For control, apply this product using a handheld sprayer when at least 50 percent of the new leaves are fully developed.		
Maple, vine*	1.5 – 3.75	0.75 – 1.5%
Monkey flower*	1.5 – 3.0	0.75 – 1.5%
Oak; black, white*	1.5 – 3.0	0.75 – 1.5%
Oak, post	1.5 – 3.0	0.75 – 1.5%
Oak, red	---	0.75 – 1.2%
For control, apply this product using a handheld sprayer when at least 50 percent of the new leaves are fully developed.		
Oak; northern, pin	1.5 – 3.0	0.75 – 1.2%
For control, apply this product when at least 50 percent of the new leaves are fully developed.		
Oak, Poison	3.0 – 3.75	1.5%
Repeat applications might be required to maintain control. Application in the fall must be made before leaves lose green color.		
Oak, Scrub*	1.5 – 3.0	0.75 – 1.5%
Oak, southern red	1.5 – 3.75	1.0 – 1.5%
Orange, Osage	1.5 – 3.75	0.75 – 1.5%
Peppertree, Brazilian (Florida holly)*	1.5 – 3.75	1.5%

(continued)

WEED SPECIES	BROADCAST RATE (QT/A)	HAND-HELD SPRAY-TO-WET % SOLUTION
Persimmon*	1.5 – 3.75	0.75 – 1.5%
Pine	1.5 – 3.75	0.75 – 1.5%
Poplar, yellow*	1.5 – 3.75	0.75 – 1.5%
Prunus	1.5 – 3.75	1.0 – 1.5%
Raspberry	2.3 – 3.0	0.75 – 1.2%
Redbud, eastern	1.5 – 3.75	0.75 – 1.5%
Redcedar, eastern	1.5 – 3.75	0.75 – 1.5%
Rose, multiflora	1.5	0.75%
Make application prior to leaf deterioration by leaf-feeding insects.		
Russian olive*	1.5 – 3.75	0.75 – 1.5%
Sage, black	1.5 – 3.0	0.75%
Sage, white*	1.5 – 3.0	0.75 – 1.5%
Sage brush, California	1.5 – 3.0	0.75%
Salmonberry	1.5	0.75%
Saltbush	---	1.0%
Salt-cedar	3.0 – 3.75	0.75 – 1.5%
For partial control, apply a 1- to 2-percent solution of this product using a handheld sprayer or 3 to 3.75 quarts per acre as a broadcast application.		
For control, apply a 1- to 1.5-percent solution of this product in a tank-mix with Arsenal herbicide or Arsenal Herbicide Applicators Concentrate using a handheld sprayer. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.		
For control using broadcast application, apply 1.5 quarts of this product per acre in a tank-mix with an appropriate rate of Arsenal herbicide or Arsenal Herbicide Applicators Concentrate to plants less than 6 feet tall.		
To control saltcedar greater than 6 feet tall using broadcast application, apply 3 quarts of this product per acre in a tank-mix with a higher labeled rate of Arsenal herbicide or Arsenal Herbicide Applicators Concentrate.		
Sassafras*	1.5 – 3.75	0.75 – 1.5%
Sea Myrtle	---	1.0%
Sourwood*	1.5 – 3.75	0.75 – 1.5%
Sumac; laurel, poison, smooth, Sugarbush, winged*	1.5 – 3.0	0.75 – 1.5%
Sweetgum	1.5 – 2.3	0.75 – 1.5%

(continued)



WEED SPECIES	BROADCAST RATE (QT/A)	HAND-HELD SPRAY-TO-WET % SOLUTION
Swordfern*	1.5 – 3.75	0.75 – 1.5%
Tallowtree, Chinese	---	0.75%
Tan oak resprouts*	---	1.5%
Thimbleberry	1.5	0.75%
Tobacco, tree*	1.5 – 3.0	0.75 – 1.5%
Toyon*	---	1.5%
Trumpet creeper	1.5 – 2.3	0.75 – 1.2%
Virginia creeper	1.5 – 3.75	0.75 – 1.5%
Waxmyrtle, southern*	1.5 – 3.75	1.5%
Willow	2.3	0.75%
Yerba Santa, California*	---	1.5%

\*Partial control

**Other woody brush and trees listed in this label** – For partial control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75 to 1.5 percent solution with hand-held equipment.

## 8.0 STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep container closed to prevent spills and contamination. Store above 5°F (-15°C) to keep product from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container to mix well before using.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

**CONTAINER DISPOSAL:** 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 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 if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

## 9.0 WARRANTY DISCLAIMER, INHERENT RISKS OF USE, LIMITATION OF REMEDIES

### IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Remedies before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following warranty disclaimer, inherent risks of use and limitation of remedies.

### WARRANTY DISCLAIMER

Ragan and Massey, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, Ragan and Massey, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label directions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Ragan and Massey, Inc. or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

### LIMITATION OF REMEDIES

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based

on contract, negligence, strict liability, or other legal theories), shall be limited to, at Ragan and Massey, Inc.'s election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent consistent with applicable law, Ragan and Massey, Inc. shall not be liable for losses or damages resulting from handling or use of this product unless Ragan and Massey, Inc. is promptly notified of such loss or damage in writing. In no case shall Ragan and Massey, Inc. be liable for consequential or incidental damages or losses. The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Ragan and Massey, Inc. or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

Compare-N-Save is a trademark of Tangi-Pac, LLC

Monsanto and Vine symbol are trademarks of Monsanto Technology LLC.

Escort and Ronstar are trademarks of Bayer Environmental Science  
Hyvar, Krovax, Onst, and Telar are trademarks of E.I. duPont de Nemours & Co. Inc.

Karmex is a trademark of ADAMA

Garlon, Spike and Tordon are trademarks of Dow AgroSciences

Surflan is a trademark of UPI

Barricade, Endurance, Princep, and Vanquish are trademarks of Syngenta Group

Arsenal, Pendulum, Plateau, and Sahara are trademarks of BASF Corporation

# FARMWORKS® AQUATIC HERBICIDE

GROUP 9 HERBICIDE

Read the entire label before using this product. Use only in accordance to label directions for use.

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

**This product is a complete broad spectrum post emergence herbicide for weed control in aquatic sites.**

## 1.0 INGREDIENTS AND FRONT PANEL STATEMENTS

### ACTIVE INGREDIENT:

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

**OTHER INGREDIENTS:** ..... 46.2%

**TOTAL:** ..... 100.0%

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

## KEEP OUT OF REACH OF CHILDREN CAUTION

See inside label booklet for complete DIRECTIONS FOR USE and additional PRECAUTIONARY STATEMENTS.

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Remove and wash contaminated clothing before reuse.

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

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

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

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

### USER SAFETY RECOMMENDATIONS

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

### 2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters and 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.

### 2.3 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.

### Manufactured by:

Ragan and Massey, Inc.,

101 Ponchatoula Pkwy., Ponchatoula, LA 70454

(800) 264-5281 • info@raganandmassey.com

**FarmWorks® is a registered trademark of Tangi-Pac, LLC.**

EPA Reg. No. 84009-30

EPA Est. No. 084840-LA-001