GROUP 14 HERBICIDE

SEMERA™

51.0% WDG HERBICIDE

FOR USE IN CONTAINER AND FIELD GROWN CONIFERS AND DECIDUOUS TREES, AROUND ESTABLISHED WOODY ORNAMENTALS IN LANDSCAPES, TO MAINTAIN BARE GROUND NON-CROP AREAS, AND DORMANT TURFGRASS.
FOR THE MANAGEMENT OF UNDESIREABLE AQUATIC VEGETATION IN SLOW MOVING OR QUIESCENT WATERS (TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE AND SUBSURFACE APPLICATIONS).

ACTIVE INGREDIENT	**By Wt.**
*Flumioxazin	51%
OTHER INGREDIENTS	49%
TOTAL	100%

*(2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2*H*-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1*H*-isoindole-1,3(2*H*)-dione)

Semera™ 51.0% WDG Herbicide is a water dispersible granule containing 51% active ingredient.

KEEP OUT OF REACH OF CHILDREN
CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

EPA Reg. No. 59639-120-91234

Form 2011-B

Atticus

Manufactured for:
Atticus, LLC
501 Cascade Pointe Lane Suite 102
Cary, NC 27513

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing.

FIRST AID

If inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If on skin or clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some of the materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes and socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

Terrestrial uses

This product is toxic to non-target plants and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and should be used strictly in accordance with the drift and runoff precautions on this label in order to minimize off-site exposures.

Under some conditions this product may have a potential to run off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide runoff. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where runoff could occur will minimize water runoff and is recommended.

Aquatic uses

If not used in accordance with directions on the label, this product can be toxic to non-target plants and aquatic invertebrates. Do not apply to water except as specified on the label. Drift and runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas, if not used in accordance to label directions. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and should be used strictly in accordance with the drift and runoff precautions on this label in order to minimize off-site exposures.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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 statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

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NON-AGRICULTURAL USE REQUIREMENTS

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

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

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

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER. Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label **and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED**

(continued)

(continued)

OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law, if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty** and **Limitation of Liability,** which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

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PRODUCT INFORMATION

Terrestrial Uses

Semera 51.0% WDG Herbicide is a preemergence and early postemergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees and conifers grown outdoors in containers or in the field (in ground), to maintain bare ground non-crop areas, and dormant warm season turfgrass.

Semera 51.0% WDG Herbicide controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled preemergence when exposed to sunlight following contact with the soil-applied herbicide.

Semera 51.0% WDG Herbicide may cause spotting or speckling on foliage if the spray solution directly contacts actively growing plant foliage or green bark. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of *Semera 51.0% WDG Herbicide* is limited, and under most conditions established and vigorously growing woody ornamentals will rapidly outgrow any injury symptoms. **However, direct application to actively growing foliage can cause severe injury or death with sensitive ornamental plant species, especially in herbaceous bedding plants and flowers.**

IMPORTANT: When applied as directed, plants listed on this label have shown tolerance to *Semera 51.0% WDG Herbicide*. However, *Semera 51.0% WDG Herbicide* is a very active herbicide and the user should exercise responsible judg-

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ment and caution until familiarity is gained with this product. Due to variability within species, crop growth stage, environmental conditions and application techniques, it is recommended that users test this product under local growing conditions on a small number of plants and evaluate for 4 to 6 weeks for phytotoxicity. Testing *Semera 51.0% WDG Herbicide* on a small number of plants will determine if the herbicide can be used safely on a widespread application. Neither the seller nor the manufacturer of *Semera 51.0% WDG Herbicide* has investigated the safety to plants not listed on the label.

USE RESTRICTIONS

- Do not apply in enclosed greenhouse structures if plants are present.
- Do not move plants for 24 hours into enclosed greenhouses until the *Semera 51.0% WDG Herbicide* treated area has been watered.
- Do not apply when weather conditions favor spray drift from treated areas.
- Do not graze treated fields or hay to livestock.
- Do not incorporate into soil after application.
- Do not apply this product through any type of irrigation system.
- Do not apply when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- Only apply to healthy established trees and ornamentals.
- Do not apply more than 12 oz (0.38 lb ai/A) of *Semera 51.0% WDG Herbicide* per acre per application.
- Do not apply more than 24 oz (0.76 lb ai/A) of *Semera 51.0% WDG Herbicide* per acre per year.

Aquatic Uses

Semera 51.0% WDG Herbicide is a fast acting contact herbicide that controls selected submersed, emergent and floating aquatic weeds. It is most effective when applied to young, actively growing weeds in water with a pH of less than 8.5.

Semera 51.0% WDG Herbicide may be applied to the following quiescent or slow moving bodies of water:

- Bayous
- Canals
- Drainage ditches
- Lakes
- Marshes
- Ponds (including golf course ponds)
- Reservoirs

Application of *Semera 51.0% WDG Herbicide* to public aquatic areas may require special approval and/or permits. Consult with local state agencies, if required.

USE PRECAUTIONS AND RESTRICTIONS

- Do not apply to intertidal or estuarine areas.
- There is no post-application holding restriction against use of treated water for drinking or recreational purposes (e.g., swimming, fishing).
- In areas with dense weed vegetation only treat 1/2 the water body at one time and wait 10-14 days before treating the remaining area. Do not retreat the same section of water within 28 days of application.
- Treated water may not be used for irrigation purposes on food crops until at least five (5) days after application.
- Treated water may be used for irrigation purposes on turf and landscape ornamentals as outlined in the *Irrigation Restrictions Following Application* table.
- Do not use in water utilized for crawfish farming.
- Do not re-treat the same section of water with *Semera 51.0% WDG Herbicide* more than 6 times per year.
- Do not exceed 400 ppb of *Semera 51.0% WDG Herbicide* during any one application.

IRRIGATION RESTRICTIONS FOLLOWING APPLICATION

Application Method	Application Rate	Average Water Depth	Turf and Landscape Ornamentals	Ornamentals Grown for Production in Greenhouse and Nursery
Surface Spray	6 to 12 oz per surface acre	Greater than 3 feet	None	5 days
		Less than 3 feet	12 hours	5 days
Subsurface	Less than 200 ppb	N/A	1 day	5 days
	200 to 300 ppb	N/A	2 days	5 days
	300 to 400 ppb	N/A	3 days	5 days

RESISTANCE MANAGEMENT *Terrestrial Uses*

Any weed population may contain or develop plants naturally resistant to herbicides in various modes of action. Resistant biotypes may eventually dominate the weed population if herbicides with the same mode of action are used repeatedly in the same field or in successive years. These resistant biotypes may not be adequately controlled by herbicides in a mode of action class for which resistance has developed. A gradual or total loss of weed control may occur over time. Other resistance mechanisms that are not linked to site of action, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

To Delay Herbicide Resistance

- Avoid the use of herbicides that have a similar target site mode of action in consecutive years.
- Herbicide use should be based on an Integrated Pest Management (IPM) program that includes scouting, record keeping, and consideration of cultivation practices, water management, weed-free crop seed, crop rotation, and other chemical or cultural control practices.
- Monitor treated weed population for resistance development and report suspected resistance.
- Contact your local extension or crop expert (advisor) for any additional pesticide resistance management and/or IPM recommendations for specific crops and weed biotypes.
- For further information contact Valent U.S.A. Corporation at the following toll-free number 800-898-2536.

PREEMERGENCE APPLICATION

Preemergence weed control with *Semera 51.0% WDG Herbicide* is most effective when applied to clean, weed-free soil surfaces prior to weed emergence. Moisture is necessary to activate *Semera 51.0% WDG Herbicide* on soil for residual weed control. Dry weather following application of *Semera 51.0% WDG Herbicide* may reduce effectiveness. However, when adequate moisture is received after dry conditions, *Semera 51.0% WDG Herbicide* will control susceptible germinating weeds.

When adequate moisture is not received soon after *Semera 51.0% WDG Herbicide* is applied to soil, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate (1/2" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. Deep cultivation reduces the effectiveness of *Semera 51.0% WDG Herbicide* and should be avoided.

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POSTEMERGENCE APPLICATION

The most effective postemergence weed control with *Semera 51.0% WDG Herbicide* occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Apply *Semera 51.0% WDG Herbicide* only to actively growing weeds. Applying *Semera 51.0% WDG Herbicide* under conditions that do not promote active weed growth will reduce herbicide effectiveness. *Semera 51.0% WDG Herbicide* is most effective when applied under sunny conditions at temperatures above 65°F.

Semera 51.0% WDG Herbicide is rainfast one hour after application. Applications should not be made if rain is expected within one hour of application or efficacy may be reduced.

SOIL CHARACTERISTICS

Application of *Semera 51.0% WDG Herbicide* to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

RESISTANCE MANAGEMENT *Aquatic Uses*

Semera 51.0% WDG Herbicide is a Group 14 herbicide. Any weed population may contain or develop plants that are resistant to *Semera 51.0% WDG Herbicide* and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same water body or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by *Semera 51.0% WDG Herbicide* or other Group 14 herbicides.

To delay or prevent herbicide resistance consider the following recommendations:

- Avoid the use of more than two consecutive applications of *Semera 51.0% WDG Herbicide* or other herbicides that have a similar target site of action.
- Alternate herbicides used for aquatic weed control.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated weed populations for loss of efficacy.
- Contact your local extension specialist, other experts appropriate to aquatic use, and/or manufacturer for resistance and/or integrated weed management recommendations.

For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at the following toll-free number: 800-89-VALENT (898-2536).

CARRIER VOLUME AND SPRAY PRESSURE

PREEMERGENCE APPLICATION

To ensure uniform coverage when using boom sprayers, use at least 10 gals of spray solution per acre. When making backpack applications, apply 50 to 100 gals of spray solution per acre. Nozzle selection should meet manufacturer's gallonage and pressure recommendation for preemergence herbicide application.

POSTEMERGENCE APPLICATION

To ensure thorough coverage when using boom sprayers apply at least 15 gals of spray solution per acre. Apply at least 20 gals per acre when using a boom sprayer if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 1 gal of spray solution per 500 to 1,000 sq ft. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application.

ADDITIVES

POSTEMERGENCE APPLICATION

When applying *Semera 51.0% WDG Herbicide* after weeds emerge, mix with an agronomically approved adjuvant. When an adjuvant is to be used with this product, Valent recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Mix *Semera 51.0% WDG Herbicide* with a crop oil concentrate that contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying *Semera 51.0% WDG Herbicide* as part of a postemergence weed control program. Mixing compatibility should be verified by a jar test before using. Do not mix *Semera 51.0% WDG Herbicide* with a surfactant when applying over the top of dormant woody ornamentals or conifer trees.

A spray-grade nitrogen source (either ammonium sulfate at 2.0 to 2.5 lb/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND *SEMERA 51.0% WDG HERBICIDE*

A jar test should be performed before mixing commercial quantities of *Semera 51.0% WDG Herbicide*, when using *Semera 51.0% WDG Herbicide* for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt of water to a quart jar. The water should be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp) of *Semera 51.0% WDG Herbicide* for the 8 oz/A rate or 4 grams (approximately 1-1/2 tsp) for 12 oz/A rate to the jar. Gently mix until product disperses.
3. Add 60 ml (4 Tbsp or 2 fl oz) of additive to the quart jar and gently mix.
4. If nitrogen is being used, add 16 ml (1 Tbsp) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 grams of AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
   a) Layer of oil or globules on the solution surface.
   b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
   c) Clabbering: Thickening texture (coagulated) like gelatin.

APPLICATION EQUIPMENT

Important: Thoroughly clean spray equipment, including all tanks, hoses, booms, screens and nozzles, after application of *Semera 51.0% WDG Herbicide*. Equipment with *Semera 51.0% WDG Herbicide* residue remaining in the system may result in crop injury to subsequently treated crops.

SPRAYER PREPARATION

Before applying *Semera 51.0% WDG Herbicide*, clean the spray tank, as well as all hoses and booms to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. Clean spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply *Semera 51.0% WDG Herbicide*. If two or more products were tank mixed prior to *Semera 51.0% WDG Herbicide* application, follow the most restrictive cleanup procedure on the label of all products.

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MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. To ensure a uniform spray mixture, pre-slurry the required amount of *Semera 51.0% WDG Herbicide* with water prior to addition to the spray tank. Use a minimum of 1 gal of water per 10 oz of *Semera 51.0% WDG Herbicide*.
3. While agitating, slowly add the pre-slurried *Semera 51.0% WDG Herbicide* to the spray tank. Agitation should create a rippling or rolling action on the water surface.
4. If tank mixing *Semera 51.0% WDG Herbicide* with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
5. Add any required adjuvants.
6. Fill spray tank to desired level with water. **Continue agitation until spray solution has been applied.**
7. Mix only the amount of spray solution that can be applied the day of mixing. **Apply** *Semera 51.0% WDG Herbicide* **within 12 hours of mixing.**

SPRAYER CLEANUP

Spray equipment must be cleaned each day following *Semera 51.0% WDG Herbicide* application. After *Semera 51.0% WDG Herbicide* is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank and rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank with clean water and household ammonia. Use 1 gal of 3% household ammonia for every 100 gals of water.
4. Circulate through sprayer for 5 minutes.
5. Then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes.
6. Loosen any diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm.
7. Drain tank completely.
8. Add enough clean water to the spray tank to flush hoses, booms, screens and nozzles for 2 minutes.
9. Remove all nozzles and screens and rinse them with clean water.

APPLICATION EQUIPMENT

Application equipment should be clean and in good repair. Nozzles should be uniformly spaced on boom and frequently checked for accuracy.

BROADCAST APPLICATION

Apply *Semera 51.0% WDG Herbicide*, and *Semera 51.0% WDG Herbicide* tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume.

BAND APPLICATION

When banding, use proportionately less water and *Semera 51.0% WDG Herbicide* per acre.

HANDGUN APPLICATION

Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gals per acre to insure uniform coverage.

BACKPACK APPLICATION

When applying *Semera 51.0% WDG Herbicide* with a backpack sprayer follow all above restrictions. Calibrate backpack sprayers to deliver 1 gal of spray solution per 500 to 1,000 sq ft.

For Backpack Applications of *Semera 51.0% WDG Herbicide* at 10 oz per acre

Application Volume	Amount of *Semera 51.0% WDG Herbicide* to mix in 1 gal of water	Amount of *Semera 51.0% WDG Herbicide* to mix in 2 gals of water	Amount of *Semera 51.0% WDG Herbicide* to mix in 3 gals of water
1 gal per 500 sq ft (= 87 GPA)	1-1/4 tsp	2-1/2 tsp	3-3/4 tsp
1 gal per 750 sq ft (= 58 GPA)	1-3/4 tsp	3-1/2 tsp	5-1/4 tsp
1 gal per 1,000 sq ft (= 43.5 GPA)	2-1/2 tsp	5 tsp	7-1/2 tsp

1 level teaspoon (tsp) holds 2.8 grams of *Semera 51.0% WDG Herbicide*

Example: Applicator wants to spray 1 gal of *Semera 51.0% WDG Herbicide* solution per 1,000 sq ft of ground bed, and wants to mix up 2 gals of spray solution. Therefore, applicator should mix 5 teaspoons of *Semera 51.0% WDG Herbicide* in 2 gals of water.

AERIAL APPLICATION

To obtain satisfactory weed control with aerial application of *Semera 51.0% WDG Herbicide*, coverage must be uniform. Do not spray when drift is possible or when wind velocity is more than 10 mph. Avoid spraying *Semera 51.0% WDG Herbicide* within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

Volume Pressure

Apply *Semera 51.0% WDG Herbicide* in 5 to 10 gals of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gals per acre may not provide adequate weed control. Higher gallonage applications generally provide more consistent weed control.

Nozzles and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles such as diaphragm-type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

Adjuvants

Refer to the additive section or the tank mix partners label for adjuvant recommendation.

CALIBRATION TABLE

SEMERA 51.0% WDG HERBICIDE RATES OZ/A	*SEMERA 51.0% WDG HERBICIDE* RATES GRAMS/GAL	*SEMERA 51.0% WDG HERBICIDE* RATES PER GAL
8	2.3	3/4 tsp
10	2.8	1 level tsp
12	3.4	1-1/4 tsp

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SPRAY DRIFT MANAGEMENT
FOR FOLIAR OR SURFACE APPLICATIONS

SPRAY DRIFT REDUCTION

Terrestrial Uses

Do not apply under circumstances where possible drift to unprotected persons or to food, forage or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

- Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. For ground boom and aerial applications, use medium or coarser spray nozzles according to ASAE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.
- Make aerial or ground applications when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.
- Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
- For ground boom applications, apply with nozzle height no more than 4 ft above the ground or crop canopy.

Aquatic Uses

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 is responsible for considering all these factors when making decisions.

Do not spray *Semera 51.0% WDG Herbicide* under circumstances where spray droplets may drift on to unprotected persons, or plantings of food, forage or crops that might be damaged, or rendered unfit for sale, use or consumption. These precautions are not applicable for subsurface injection by closed systems.

- Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. For ground boom and aerial applications, use medium or coarser spray nozzles according to ASAE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.
- Make aerial, ground or watercraft-based surface applications when wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph.
- Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Low humidity and high temperatures increase the evaporation rate of spray droplets, and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.

Properly maintain and calibrate all aerial, ground and water-based application equipment.

Where states have more stringent regulations, they should be observed.

WEEDS CONTROLLED

When *Semera 51.0% WDG Herbicide* is applied preemergence or postemergence at recommended rates and weed stages, the following grasses, broadleaf weeds, floating and emerged weeds and submersed and floating weeds are controlled.

TABLE 1. WEEDS CONTROLLED BY *SEMERA 51.0% WDG HERBICIDE*

COMMON NAME	SCIENTIFIC NAME
Alyssum, Hoary	*Berteroa incana*
Amaranth	
Palmer	*Amaranthus palmeri*
Spiny	*Amaranthus spinosus*
American Burnweed	*Erechetities hieracifolia*
Barnyardgrass*	*Echinochloa crus-galli*
Beggarweed, Florida	*Desmodium tortuosum*
Bittercress, Hairy	*Cardamine hirsuta*
Bluegrass, Annual	*Poa annua*
Burclover, California	*Medicago polymorpha*
Carpetweed	*Mollugo verticillata*
Chamberbitter	*Phyllanthus urinaria*
Chickweed	
Common	*Stellaria media*
Mouseear	*Cerastium vulgatum*
Crabgrass	
Large*	*Digitaria sanguinalis*
Smooth*	*Digitaria ischaemum*
Southern*	*Digitaria ciliaris*
Croton, Tropic	*Croton glandulosus* var. *septentrionalis*
Dandelion*	*Taraxacum officinale*
Dogfennel	*Eupatorium capillifolium*
Doveweed	*Murdannia nudiflora*
Eclipta	*Eclipta prostrata*
Filaree, Redstem*	*Erodium cicutarium*
Foxtail	
Bristly*	*Setaria verticillata*
Giant*	*Setaria faberi*
Green*	*Setaria viridis*
Yellow*	*Setaria glauca*
Galinsoga, Hairy	*Galinsoga ciliata*
Geranium, Carolina	*Geranium carolinianum*
Goosegrass*	*Eleusine indica*
Groundsel, Common	*Senecio vulgaris*
Groundsel Tree	*Baccharis halimifolia*
Henbit	*Lamium amplexicaule*
Horseweed*	*Conyza canadensis*
Indigo, Hairy	*Indigofera hirsuta*
Ivy, Ground*	*Glechoma hederacea*
Jimsonweed	*Datura stramonium*
Kochia	*Kochia scoparia*
Kyllinga, Green*	*Kyllinga brevifolia*
Ladysthumb	*Polygonum persicaria*

(continued)

*Preemergence control only.

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TABLE 1. WEEDS CONTROLLED BY *SEMERA 51.0% WDG HERBICIDE* (continued)

COMMON NAME	SCIENTIFIC NAME
Lambsquarters, Common	*Chenopodium album*
Liverwort	*Marchantia polymorpha*
Lovegrass, California*	*Eragrostis diffusa*
Mallow	
Common	*Malva neglecta*
Little	*Malva parviflora*
Venice	*Hibiscus trionum*
Marsh Parsley	*Apium leptophyllum*
Marsh Yellowcress	*Rorippa islandica*
Mayweed*	*Anthemis cotula*
Morningglory	
Entireleaf	*Ipomoea hederacea* var. *integriuscula*
Ivyleaf	*Ipomoea hederacea*
Red/Scarlet	*Ipomoea coccinea*
Smallflower	*Jacquemontia tamnifolia*
Tall	*Ipomoea purpurea*
Moss	*Bryum* spp.
Mulberry Weed	*Fatuoa villosa*
Mustard	
Tumble	*Sisymbrium altissimum*
Wild	*Brassica kaber*
Nightshade	
Black	*Solanum nigrum*
Eastern Black	*Solanum ptycanthum*
Hairy	*Solanum sarrachoides*
Northern Willowherb	*Epilobium cillatum*
Panicum	
Fall*	*Panicum dichotomiflorum*
Texas*	*Panicum texanum*
Parsley-Piert	*Alchemilla arvensis*
Pearlwort, Birdseye*	*Sagina procumbens*
Pennycress, Field	*Thlaspi arvense*
Phyllanthus, Longstalked	*Phyllanthus tenellus*
Pigweed	
Prostrate	*Amaranthus blitoides*
Redroot	*Amaranthus retroflexus*
Smooth	*Amaranthus hybridus*
Tumble	*Amaranthus albus*
Pineapple-weed*	*Matricaria matricarioides*
Plantain	
Broadleaf*	*Plantago major*
Buckhorn*	*Plantago lanceolata*
Poinsettia, Wild	*Euphorbia heterophylla*
Puncturevine	*Tribulus terrestris*
Purslane, Common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Ragweed	
Common	*Ambrosia artemisiifolia*
Giant	*Ambrosia trifida*
Redmaids	*Calandrinia ciliata*
Redweed	*Melochia corchorifolia*
Rocket, Yellow	*Barbarea vulgaris*
Senna, Coffee	*Cassia occidentalis*
Sesbania, Hemp	*Sesbania exaltata*
Shepherd's-Purse	*Capsella bursa-pastoris*

(continued)

*Preemergence control only.

TABLE 1. WEEDS CONTROLLED BY *SEMERA 51.0% WDG HERBICIDE* (continued)

COMMON NAME	SCIENTIFIC NAME
Sida, Prickly (Teaweed)	*Sida spinosa*
Signalgrass*	*Brachiaria platyphylla*
Smartweed, Pennsylvania	*Polygonum pensylvanicum*
Sowthistle, Annual	*Sonchus oleraceus*
Spiderwort, Tropical	*Commelina benghalensis*
Spurge	
Petty	*Euphorbia peplus*
Prostrate	*Euphorbia humistrata Engelm*
Spotted	*Euphorbia maculata*
Starbur, Bristly*	*Acanthospermum hispidum*
Tassel-flower	*Emilia* spp.
Thickhead	*Crassocephalum crepidoides*
Thistle	
Canada*	*Cirsium arvense*
Russian	*Salsola iberica*
Velvetleaf	*Abutilon theophrasti*
Waterhemp	
Common	*Amaranthus rudis*
Tall	*Amaranthus tuberculatus*
Woodsorrel, Yellow*	*Oxalis stricta*

*Preemergence control only.

DIRECTIONS FOR USE IN ESTABLISHED CONTAINER AND FIELD GROWN CONIFERS

Apply *Semera 51.0% WDG Herbicide* as a single or split application to established container and field grown conifers. The conifers listed in Table 2 have exhibited tolerance to *Semera 51.0% WDG Herbicide* only when the product is applied to dormant or hardened off plant material. If applied over the top of plant foliage, apply *Semera 51.0% WDG Herbicide* before spring bud break or after conifers have sufficiently hardened off. During periods of cool, cloudy weather, use caution to ensure conifers have hardened off prior to herbicide application. Do not apply to conifers within 1 year of seedling emergence.

PREEMERGENCE APPLICATION

Apply 8 to 12 oz (0.25 to 0.38 lb ai/A) of *Semera 51.0% WDG Herbicide* per broadcast acre before weeds emerge. Apply to weed-free, established conifers grown in containers or in the field (in ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application. *Semera 51.0% WDG Herbicide* may be sprayed directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, *Semera 51.0% WDG Herbicide* will typically not affect subsequent growth. If conifers are not dormant or hardened off at time of application, and foliar injury cannot be tolerated, apply *Semera 51.0% WDG Herbicide* as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage. Mechanically incorporating *Semera 51.0% WDG Herbicide* after application will disturb soil surfaces, which may reduce herbicidal efficacy. When applied before weed germination, *Semera 51.0% WDG Herbicide* will control broadleaf and grassy weeds listed in Table 1.

POSTEMERGENCE APPLICATION

Apply 8 to 12 oz (0.25 to 0.38 lb ai/A) of *Semera 51.0% WDG Herbicide* per broadcast acre after weeds have emerged. *Semera 51.0% WDG Herbicide* may be sprayed directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, *Semera 51.0% WDG Herbicide* will typically not affect subsequent growth. If conifers are not

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dormant or hardened off at the time of application, and foliar injury cannot be tolerated, apply *Semera 51.0% WDG Herbicide* as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage.

If applied when weeds are actively growing and no larger than 2 inches in height, *Semera 51.0% WDG Herbicide* will provide postemergence control of broadleaf weeds and grasses listed in Table 1. Postemergence control of *Semera 51.0% WDG Herbicide* may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

TANK MIXTURES FOR CONTAINER AND FIELD GROWN CONIFERS

Tank mixing *Semera 51.0% WDG Herbicide* with other preemergence and postemergence herbicides registered for use on conifers may provide a broader spectrum of weed control than *Semera 51.0% WDG Herbicide* applied alone. *Semera 51.0% WDG Herbicide* may also be applied as part of a postemergence burndown program for control of annual and perennial weeds. Tank mixing *Semera 51.0% WDG Herbicide* with glyphosate will increase the speed of burndown compared to glyphosate applied alone. *Semera 51.0% WDG Herbicide* may be tank mixed with products containing the following active ingredients labeled for use in conifers:

clethodim
glyphosate*
oryzalin
prodiamine
simazine*

*Do not apply glyphosate or simazine to containerized ornamentals.

IMPORTANT: Completely read and follow the label of any potential *Semera 51.0% WDG Herbicide* tank mix partner. When tank mixing *Semera 51.0% WDG Herbicide* with other herbicides, always follow the most restrictive label limitations and precautions on the label of any tank mix partner.

TOLERANT CONIFERS

Semera 51.0% WDG Herbicide may be applied to the conifer species listed in Table 2. If a desired conifer species is not listed in Table 2, users should evaluate the safety of *Semera 51.0% WDG Herbicide* on a small number of plants under commercial growing conditions, and monitor plant response for four to six weeks for phytotoxicity. Testing *Semera 51.0% WDG Herbicide* on a small number of plants will determine if *Semera 51.0% WDG Herbicide* can be used safely on a widespread basis.

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 2 applications at 12 oz/A (0.38 lb ai/A) or 3 applications at 8 oz/A (0.25 lb ai/A) per year.
- Do not re-apply *Semera 51.0% WDG Herbicide* within 30 days.

TABLE 2. TOLERANT CONIFERS

COMMON NAME	SCIENTIFIC NAME
Arborvitae	
American	*Thuja occidentalis*
Oriental	*Thuja orientalis*
Fir	
Concolor	*Abies concolor*
Cork Bark	*Abies lasiocarpa*
Douglas	*Pseudotsuga menzesii*
Fraser	*Abies fraseri*
Grand	*Abies grandis*
Noble	*Abies procera*
Turkish	*Abies bommuelleriana*

(continued)

TABLE 2. TOLERANT CONIFERS (continued)

COMMON NAME	SCIENTIFIC NAME
Hemlock	
Eastern	*Tsuga canadensis*
Western	*Tsuga heterophylla*
Juniper	
Blue Star	*Juniperus scopularum*
Creeping	*Juniperus horizontalis*
Japanese Garden	*Juniperus chinensis*
Tamarix	*Juniperus sabina*
Pine	
Austrian	*Pinus nigra*
Eastern White	*Pinus strobus*
Jack	*Pinus banksiana*
Japanese Black	*Pinus thunbergiana*
Loblolly	*Pinus taeda*
Lodgepole	*Pinus contorta*
Longleaf	*Pinus palustris*
Mugo	*Pinus mugo*
Ponderosa	*Pinus ponderosa*
Sand	*Pinus clausa*
Scotch	*Pinus sylvestris*
Shortleaf	*Pinus echinata*
Slash	*Pinus elliottii*
Virginia	*Pinus virginiana*
Spruce	
Blue	*Picea pungens*
Dwarf Alberta	*Picea glauca conica*
Norway	*Picea abies*
Sitka	*Picea sitchensis*
Yew	
English	*Taxus baccata*
Japanese	*Taxus cuspidata*

DIRECTIONS FOR USE IN CONTAINER AND FIELD GROWN DECIDUOUS TREES AND NON-BEARING FRUIT AND NON-BEARING NUT TREES

Semera 51.0% WDG Herbicide may be applied as single or split applications to container and field grown deciduous trees with an established root system. The deciduous trees listed in Table 3 have exhibited tolerance to *Semera 51.0% WDG Herbicide* only when applied to the soil and base of plants. Application of *Semera 51.0% WDG Herbicide* to deciduous foliage or green bark may result in unacceptable injury.

Semera 51.0% WDG Herbicide may be applied to established (or transplanted) container and field grown deciduous trees. Do not apply to trees that are less than one year old or have been transplanted less than one year, unless completely protected by non-porous wraps, grow tubes, waxed protectors or other forms of protection to young foliage and/or bark. Do not harvest fruit or nuts from treated trees within one year of application.

IMPORTANT: Direct application of *Semera 51.0% WDG Herbicide* to the soil surface and away from plant foliage and bark. Avoid direct spray contact on plant surfaces, foliage and green bark or injury may result. Application of *Semera 51.0% WDG Herbicide* after bud swell may cause injury if herbicide contacts foliage. Avoid application under environmental conditions that favor drift to non-targeted areas.

PREEMERGENCE APPLICATION

Apply 8 to 12 oz (0.25 to 0.38 lb ai/A) of *Semera 51.0% WDG Herbicide* per broadcast acre as a preemergence (to weed emergence) application. Apply

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Semera 51.0% WDG Herbicide to weed-free deciduous trees grown in containers or in the field (in-ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application. *Semera 51.0% WDG Herbicide* may be applied to the soil surface and base of deciduous trees, provided that direct and indirect (drift) applications to plant foliage, flowers and green bark does not occur. Mechanically incorporating *Semera 51.0% WDG Herbicide* will disturb soil surfaces, which may reduce herbicidal efficacy. The use of spray shields that limit exposure of foliage and bark to *Semera 51.0% WDG Herbicide* is suggested. When applied before weed germination, *Semera 51.0% WDG Herbicide* will control broadleaf and grassy weeds listed in Table 1.

POSTEMERGENCE APPLICATION

Apply 8 to 12 oz (0.25 to 0.38 lb ai/A) of *Semera 51.0% WDG Herbicide* per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). Make postemergence (to weed emergence) applications of *Semera 51.0% WDG Herbicide* when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances *Semera 51.0% WDG Herbicide* activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *Semera 51.0% WDG Herbicide*. When applied after weed germination, *Semera 51.0% WDG Herbicide* will provide preemergence and postemergence control of broadleaf weeds and grasses listed in Table 1. If plant injury is a concern, use a spray shield to limit the exposure of trees to *Semera 51.0% WDG Herbicide*.

Postemergence control of *Semera 51.0% WDG Herbicide* may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

TANK MIXTURES FOR FIELD AND CONTAINER GROWN DECIDUOUS TREES

Tank mixing *Semera 51.0% WDG Herbicide* with other preemergence and postemergence herbicides registered for use on deciduous trees may provide a broader spectrum of weed control than *Semera 51.0% WDG Herbicide* alone. *Semera 51.0% WDG Herbicide* may also be applied as part of a postemergence burndown program of control of annual and perennial weeds. Tank mixing *Semera 51.0% WDG Herbicide* with glyphosate will increase the speed of burndown compared to glyphosate applied alone. *Semera 51.0% WDG Herbicide* may be tank mixed with products containing the following active ingredient labeled for use in deciduous trees:

clethodim
glyphosate*
oryzalin
pendimethalin
prodiamine
simazine*

*Do not apply glyphosate or simazine to containerized plants.

IMPORTANT: Completely read and follow the label of any herbicides mixed with *Semera 51.0% WDG Herbicide*. When tank mixing *Semera 51.0% WDG Herbicide* with other herbicides always follow the most restrictive limitations and precautions on the label of any tank mix partner.

TOLERANT DECIDUOUS TREES, NON-BEARING FRUIT AND NON-BEARING NUT TREES

Semera 51.0% WDG Herbicide may be applied as a directed spray to the deciduous, non-bearing fruit and non-bearing nut trees species listed in Table 3. If a desired tree species is not listed in Table 3, users should evaluate the safety of *Semera 51.0% WDG Herbicide* on a small number of plants under commercial growing conditions and monitor plant response for four to six weeks for phytotoxicity. Testing *Semera 51.0% WDG Herbicide* on a small number of plants will determine if *Semera 51.0% WDG Herbicide* can be used safely on a widespread basis.

RESTRICTIONS AND LIMITATIONS

- Do not apply more than 2 applications at 12 oz/A (0.38 lb ai/A) or 3 applications at 8 oz/A (0.25 lb ai/A) per year.
- Do not re-apply *Semera 51.0% WDG Herbicide* within 30 days.

TABLE 3. TOLERANT DECIDUOUS TREE SPECIES

COMMON NAME	SCIENTIFIC NAME
Apricot*	*Prunus* spp.
Ash	*Fraxinus* spp.
Birch	*Betula* spp.
Buckeye	*Aesculus* spp.
Cherry*	*Prunus* spp.
Chestnut	*Castanea* spp.
Citrus*	*Citrus* spp.
Dogwood	*Cornus* spp.
Eucalyptus	*Eucalyptus* spp.
Ginkgo	*Ginkgo* spp.
Hawthorn	*Crataegus* spp.
Honeylocust	*Gleditsia* spp.
Larch	*Larix* spp.
Lilac	*Syringa* spp.
Maple**	*Acer* spp.
Mrytle, Crepe	*Lagerstroemia indica*
Oak	*Quercus* spp.
Poplar	*Populus* spp.
Peach*	*Prunus* spp.
Plum*	*Prunus* spp.
Pecan*	*Carya* spp.
Redbud	*Cercis canadensis*
Sweetgum	*Liquidambar styraciflua*
Sycamore	*Platanus* spp.
Walnut, Black	*Juglans nigra*
Willow	*Salix* spp.

* Non-bearing trees only.
** Not for use on maple trees used for production of maple sap or syrup.

DIRECTIONS FOR USE AROUND ESTABLISHED WOODY LANDSCAPE ORNAMENTALS AND TO MAINTAIN BARE GROUND NON-CROP AREAS

In residential and commercial landscapes, *Semera 51.0% WDG Herbicide* should only be applied by commercial licensed applicators. Application of *Semera 51.0% WDG Herbicide* in the vicinity of ornamental plants is limited to directed sprays around well-established woody shrubs and trees such as azalea, euonymus, holly, and the conifers and deciduous trees listed in Tables 2 and 3. *Semera 51.0% WDG Herbicide* may also be applied to maintain bare ground in non-crop areas in apartment complexes, fence rows, gravel surfaces, ground mats, golf courses, lumberyards, office complexes, parks, parking areas, recreational sites, schools, sidewalks, storage areas and other similar industrial sites. Do not apply *Semera 51.0% WDG Herbicide* within any enclosed structure in residential or commercial landscapes.

Semera 51.0% WDG Herbicide offers postemergence and residual control of susceptible grasses and broadleaf weeds, as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied, rainfall and temperature. Length of residual control will decrease as temperature and precipitation increase.

IMPORTANT: Contact with *Semera 51.0% WDG Herbicide* spray or spray drift may cause severe injury or destruction of certain desirable plants, especially herbaceous species such as bedding plants or direct seeded annual and perennial flowers. Therefore, do not apply *Semera 51.0%*

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WDG Herbicide **over the top of ornamental plants growing in the landscape, and do not allow *Semera 51.0% WDG Herbicide* spray to contact, drift or splash from soil onto the foliage, green stems, exposed roots or fruit of desirable plants. Avoid application of *Semera 51.0% WDG Herbicide* under conditions that favor drift of sprays onto desired ornamentals or turfgrass. The use of spray shields that limit the plant exposure to *Semera 51.0% WDG Herbicide* is highly recommended when applying *Semera 51.0% WDG Herbicide* near desirable plants.**

Do not apply *Semera 51.0% WDG Herbicide* around landscape ornamentals until plants have been actively growing for at least 30 days after transplanting, or for at least two months before ornamentals will be planted into treated areas.

PREEMERGENCE APPLICATION (NO WEEDS ARE PRESENT)
Mix 1-1/4 to 2-1/2 tsp of *Semera 51.0% WDG Herbicide* per gal (10 oz/A) of spray solution, and apply 1 gal of spray solution to 500 - 1,000 sq ft (10 oz/A) prior to weed germination (see calibration table for backpack sprayers). Apply *Semera 51.0% WDG Herbicide* to weed-free soil, mulch or gravel surfaces. Moisture is necessary to activate *Semera 51.0% WDG Herbicide* on soil for residual weed control. When applied before weed germination, *Semera 51.0% WDG Herbicide* will control the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to *Semera 51.0% WDG Herbicide* **only** when applied to the soil at the base of the plant. For maximum plant safety when using around desirable ornamentals, direct applications of *Semera 51.0% WDG Herbicide* to the soil, and leave a sufficient untreated buffer to ensure spray solution does not contact desired plants. Do not harvest fruit or nuts from treated trees within one year of application.

POSTEMERGENCE APPLICATION (WEEDS ARE PRESENT)
Mix 1-1/4 to 2-1/2 tsp of *Semera 51.0% WDG Herbicide* per gal (10 oz/A) and apply 1 gal of spray solution to 500 - 1,000 sq ft to actively growing weeds (see calibration chart for backpack sprayers). Tank mixing *Semera 51.0% WDG Herbicide* with glyphosate will increase the spectrum of postemergence weed control over *Semera 51.0% WDG Herbicide* alone, provide faster postemergence weed control than glyphosate alone, and provide pre and postemergence control of the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to applications of *Semera 51.0% WDG Herbicide* plus glyphosate **only** when applied to the soil at the base of the plant, and sprays do not directly contact or drift onto desirable plants. For maximum plant safety when using around desirable ornamentals, direct applications of *Semera 51.0% WDG Herbicide* plus glyphosate towards the soil, and leave a sufficient non-treated buffer to ensure spray solution does not contact desired plants.

Thorough spray coverage of weeds is necessary to maximize weed control. Spray coverage should be uniform, but do not spray to the point of runoff.

Do not harvest fruit or nuts from treated trees within one year of application.

IMPORTANT: Completely read and follow the glyphosate label. When tank mixing *Semera 51.0% WDG Herbicide* with other products, always follow the most restrictive use conditions on either label.

RESTRICTIONS AND LIMITATIONS
- Do not apply more than 2 applications per year.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS IN AND AROUND ORNAMENTAL NURSERIES

Semera 51.0% WDG Herbicide, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply *Semera 51.0% WDG Herbicide* only to:
- Bare ground areas around buildings and other structures. Do not apply within any enclosed structure.
- Bare ground along fence rows.
- Gravel surfaces and driveways.
- Ground matting and gravel pads prior to the addition of containerized plants (conifers, deciduous trees and ornamentals).

IMPORTANT: Follow all applicable directions as outlined above under General Information. See Table 1 for a list of grasses and broadleaf weeds controlled by *Semera 51.0% WDG Herbicide*.

Semera 51.0% WDG Herbicide offers residual and postemergence control of susceptible grasses and broadleaf weeds as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

PREEMERGENCE APPLICATION
Apply 8 to 12 oz (0.25 to 0.38 lb ai/A) of *Semera 51.0% WDG Herbicide* per broadcast acre as a preemergence application. Preemergence (to weed emergence) applications of *Semera 51.0% WDG Herbicide* should be made to a weed-free surface. Moisture is necessary to activate *Semera 51.0% WDG Herbicide* for residual weed control. Dry weather following application of *Semera 51.0% WDG Herbicide* may reduce effectiveness. However, when adequate moisture is received after dry conditions, *Semera 51.0% WDG Herbicide* will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION
Apply 8 to 12 oz (0.25 to 0.38 lb ai/A) of *Semera 51.0% WDG Herbicide* per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of a surfactant enhances *Semera 51.0% WDG Herbicide* activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *Semera 51.0% WDG Herbicide*. Emerged weeds are controlled postemergence with *Semera 51.0% WDG Herbicide*, however, translocation of *Semera 51.0% WDG Herbicide* within a weed is limited, and control is affected by spray coverage and by the addition of a surfactant. The most effective postemergence weed control with *Semera 51.0% WDG Herbicide* occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

RESTRICTIONS AND LIMITATIONS
- Do not apply more than 2 applications at 12 oz/A (0.38 lb ai/A) or 3 applications at 8 oz/A (0.25 lb ai/A) per year.
- Do not re-apply *Semera 51.0% WDG Herbicide* within 30 days.

DIRECTIONS FOR USE ON DORMANT WARM-SEASON TURFGRASS GROWN ON RESIDENTIAL SITES, GOLF COURSES, SOD PRODUCTION AND SIMILAR AREAS

Semera 51.0% WDG Herbicide may be applied as a single or split application to well established dormant turfgrass listed in Table 4. *Semera 51.0% WDG Herbicide* will provide preemergence and early postemergence control of annual bluegrass, chickweed, henbit and other winter annual weeds found in Table 1. *Semera 51.0% WDG Herbicide* will provide preemergence control of crabgrass, goosegrass and other summer annual weeds found in Table 1. *Semera 51.0%*

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WDG Herbicide may be applied to dormant turfgrass in such areas as apartment complexes, golf courses, sod farms, roadsides, sports fields, campgrounds, office complexes, parks, parking areas, recreational sites, schools and other similar sites. Bermudagrass exhibits tolerance to *Semera 51.0% WDG Herbicide* only when applied to completely dormant turf in the late fall and before active growth resumes in the late winter/early spring. Application of *Semera 51.0% WDG Herbicide* to actively growing turfgrass (warm season and cool season) or during green-up may cause unacceptable injury.

BROADCAST APPLICATIONS

Apply 8 to 12 oz of *Semera 51.0% WDG Herbicide* per broadcast acre as a preemergence (to weed emergence) application. If weeds are present at the time of application apply *Semera 51.0% WDG Herbicide* plus an adjuvant (0.25% v/v non-ionic surfactant). Make postemergence (to weed emergence) applications of *Semera 51.0% WDG Herbicide* when weeds are actively growing and no larger than 2 inches in height. Thorough spray coverage is necessary to maximize the postemergence activity of *Semera 51.0% WDG Herbicide*. When applied after weed germination, *Semera 51.0% WDG Herbicide* will provide preemergence and postemergence control of broadleaf weeds and grasses listed in Table 1. Postemergence control of *Semera 51.0% WDG Herbicide* may be more effective on certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

Semera 51.0% WDG Herbicide will provide best control of annual bluegrass when applied in the late fall while plants are small. Control may be less effective when applied in the winter under cold conditions when weeds are not actively growing. A second application of *Semera 51.0% WDG Herbicide* may be required to provide adequate season-long annual bluegrass control. *Semera 51.0% WDG Herbicide* will provide best control of crabgrass, goosegrass and other summer annual weeds when applied in the late winter before turfgrass resumes active growth.

SPOT TREATMENTS

Mix 2-1/2 tsp per gal of *Semera 51.0% WDG Herbicide* and 2 tsp (1/3 fl oz) of non-ionic surfactant in one gal of water and apply one gal of spray solution per 1,000 sq ft. Occasionally shake the spray solution while spraying to ensure the spray solution remains well mixed. Spray the target weeds until the leaves are wet.

TANK MIXING WITH OTHER TURFGRASS HERBICIDES

Semera 51.0% WDG Herbicide will suppress, but will not effectively control established winter perennial weeds such as dandelion and clover. *Semera 51.0% WDG Herbicide* may be tank mixed with metsulfuron to control winter perennial weeds.

IMPORTANT: If applied in the spring after turfgrass resumes active growth, *Semera 51.0% WDG Herbicide* will cause temporary discoloration of turf and delay green-up. Read and follow the label of any herbicides mixed with *Semera 51.0% WDG Herbicide*. When tank mixing *Semera 51.0% WDG Herbicide* with other herbicides, always follow the most restrictive limitations and precautions on the label of any tank mix partner.

USE PRECAUTIONS

Use around Bentgrass and Poa Greens: *Semera 51.0% WDG Herbicide* has limited potential for lateral movement on level terrain, but can potentially move down slope after excessive rainfall and affect sensitive turf species such as bentgrass and *Poa trivialis.* When applied upslope from bentgrass greens or bermudagrass greens overseeded with *Poa trivialis,* allow an adequate buffer zone between greens and the treated area. If uncertain about the size of the buffer, 15 feet is suggested. Risk of movement is decreased when *Semera 51.0% WDG Herbicide* is applied to soil at less than field capacity. Avoid application when heavy rain is imminent or when the soil is saturated.

RESTRICTIONS AND LIMITATIONS

- Do not apply to golf course putting greens.
- Do not apply to warm season turfgrass that has been overseeded with cool season turfgrass (ex. perennial rye, *Poa trivialis*).
- Do not irrigate within 1 hour before or after application.
- Do not apply if rain is expected within 1 hour after application.
- Do not mow turfgrass within 12 hours after application.
- Do not apply within 30 days prior to cutting or lifting sod.
- Do not apply more than 2 applications at 12 oz/A (0.38 lb ai/A) or 3 applications at 8 oz/A (0.25 lb ai/A) per year.
- Do not re-apply *Semera 51.0% WDG Herbicide* within 30 days.
- Do not apply in fall before turfgrass has ceased active growth or in late winter/early spring after turfgrass has resumed active growth.
- Allow 8 weeks between application and seeding or sodding of turfgrass.

TABLE 4. TOLERANT TURFGRASS SPECIES

COMMON NAME	SCIENTIFIC NAME
Bermudagrass	*Cynodon* spp.

FOR THE MANAGEMENT OF UNDESIRABLE AQUATIC VEGETATION IN SLOW MOVING OR QUIESCENT WATERS

APPLICATOR & SPRAYER INFORMATION

Mixing Instructions

- Fill clean spray tank 1/2 full of desired level with water and add buffering agent if necessary.
- Add the required amount of *Semera 51.0% WDG Herbicide* to the spray tank while agitating.
- Fill spray tank to desired level with water. Ensure that *Semera 51.0% WDG Herbicide* is thoroughly mixed before making applications. Agitation should continue until spray solution has been applied.
- Mix only the amount of spray solution that can be applied the day of mixing. Apply *Semera 51.0% WDG Herbicide* within 12 hours of mixing.

ADDITIVES

When applying *Semera 51.0% WDG Herbicide* to the foliage of floating or emerged aquatic weeds, mix with an adjuvant approved for use in aquatic sites. Valent recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Mix *Semera 51.0% WDG Herbicide* with a non-ionic surfactant containing at least 80% active ingredient. Follow adjuvant manufacturer's label rates. Mixing compatibility should be verified by a jar test before using.

Jar Test to Determine Compatibility of Adjuvants and *Semera 51.0% WDG Herbicide*

Conduct a jar test before mixing commercial quantities of *Semera 51.0% WDG Herbicide*, when using for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pt of water to a quart jar. The water should be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp) of *Semera 51.0% WDG Herbicide* for the 8 oz/A rate or 4 grams (approximately 1-1/2 tsp) for 12 oz/A rate to the jar. Gently mix until product disperses.
3. Add 60 ml (4 Tbsp or 2 fl oz) of additive to the quart jar and gently mix.
4. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
5. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
   a) Layer of oil or globules on the solution surface.
   b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
   c) Clabbering: Thickening texture (coagulated) like gelatin.

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Sprayer Cleanup

If spray equipment is dedicated to application of aquatic herbicides, the following steps are recommended to clean the spray equipment:

- Completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.

If spray equipment will be used for purposes other than applying aquatic herbicides, it must be thoroughly cleaned following application of *Semera 51.0% WDG Herbicide*. The following steps must be used to clean the spray equipment:

1. Completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank with clean water.
4. Circulate through sprayer for 5 minutes.
5. Then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes.
6. Drain tank completely.
7. Remove all nozzles and screens and rinse them with clean water.

AERIAL APPLICATION

To obtain satisfactory weed control, aerial application of *Semera 51.0% WDG Herbicide*, must provide uniform coverage of surface weeds and sufficient contact time. When applied by air, *Semera 51.0% WDG Herbicide* may not provide adequate control of some submersed weeds. Do not apply by air when significant drift on to non-target plants may occur or when wind velocity is more than 10 mph. Avoid spraying *Semera 51.0% WDG Herbicide* within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and avoid drift, the following directions must be observed:

Volume and Pressure

Apply *Semera 51.0% WDG Herbicide* in a minimum of 5 gals of water per acre with a maximum spray pressure of 40 PSI. Application at less than 5 gals per acre may not provide adequate weed control. Higher gallonage applications generally provide more consistent weed control.

Nozzles and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles such as diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

Adjuvants

Refer to the additive section or the tank mix partners label for adjuvant recommendation.

DIRECTIONS FOR USE TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION

Semera 51.0% WDG Herbicide will control weeds and algae listed in Table 5, *Floating and Emerged Weeds,* when applied as a broadcast spray with appropriate equipment. For best results, apply *Semera 51.0% WDG Herbicide* to the foliage of actively growing weeds.

TABLE 5. FLOATING AND EMERGED WEEDS

COMMON NAME	SCIENTIFIC NAME
Alligator Weed	*Alternanthera philoxeroides*
Duckweed	*Lemna* spp.
Frog's-bit	*Limnobium spongia*
Water Fern	*Salvinia* spp.
Water Lettuce	*Pistia stratiotes*
Watermeal	*Wolffia* spp.
Water Pennywort	*Hydrocotyle* spp.
Filamentous algae	*Pithophora*
Filamentous algae	*Cladophora*

SURFACE APPLICATION

Apply *Semera 51.0% WDG Herbicide* as a broadcast spray at 6 to 12 ounces of formulated product per acre plus an adjuvant approved for use in aquatics.

Semera 51.0% WDG Herbicide is a contact herbicide that quickly degrades in the water column so plants that do not initially come in contact with the herbicide will not be controlled. Apply *Semera 51.0% WDG Herbicide* in a minimum of 30 gals of water per acre to all areas of the water body where weeds exist. Coverage is essential for effective control as all floating weeds need to be exposed to lethal concentrations in all parts of the water body. Any untreated escapes or re-introductions of plants that were not treated will reestablish in areas where surface weeds had previously been controlled. If a second application is required to provide control, it is recommended that a treatment be made once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

Application of *Semera 51.0% WDG Herbicide* during early morning hours may enhance weed control. When applying to densely packed actively growing surface weeds, ensure adequate coverage. Rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat floating surface weeds in sections to avoid a rapid decrease in dissolved oxygen.

Semera 51.0% WDG Herbicide may be tank mixed with 2,4-D, diquat, glyphosate or other registered foliar applied herbicides for enhanced control of floating and emergent weeds.

Consult a manufacturer's label for specific rate restrictions and weeds controlled. Always follow the most restrictive label restrictions and precautions for all products used when making an application involving tank mixes.

APPLICATION EQUIPMENT

Apply *Semera 51.0% WDG Herbicide* with sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Apply by backpack or handgun sprayer, airboat, helicopter, airplane or other application equipment that will ensure thorough coverage of target plant foliage.

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DIRECTIONS FOR USE TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE APPLICATION

Semera 51.0% WDG Herbicide will control submersed and floating weeds listed in Table 6, *Submersed and Floating Weeds Controlled by Subsurface Application,* when applied subsurface with appropriate equipment.

TABLE 6. SUBMERSED AND FLOATING WEEDS CONTROLLED BY SUBSURFACE APPLICATION

COMMON NAME	SCIENTIFIC NAME
Coontail	*Ceratophyllum demersum*
Duckweed	*Lemna* spp.
Fanwort	*Cabomba caroliniana*
Hydrilla	*Hydrilla verticillata*
Hygrophila	*Hygrophila polysperma*
Naiad, Southern	*Najas guadalupensis*
Pondweed, Curlyleaf	*Potamogeton crispus*
Pondweed, Sago	*Potamogeton pectinatus*
Pondweed, Variable-Leaf	*Potamogeton diversifolius*
Water Fern	*Salvinia* spp.
Water Lettuce	*Pistia stratiotes*
Watermeal	*Wolffia* spp.
Watermilfoil, Eurasian	*Myriophyllum spicatum*
Watermilfoil, Variable-Leaf	*Myriophyllum heterophyllum*

SUBSURFACE APPLICATION

Apply *Semera 51.0% WDG Herbicide* at a rate that will produce an initial concentration of 200 to 400 ppb (of active ingredient flumioxazin) in the water column.

Semera 51.0% WDG Herbicide is rapidly absorbed by target plants, but also breaks down quickly in water with a pH greater than 8.5. The pH of water surrounding mats of submersed vegetation can exceed 8.5 by early to mid-day, due to photosynthetic processes. Application of *Semera 51.0% WDG Herbicide* under these conditions may provide only partial weed control, and regrowth is likely. For best control, apply *Semera 51.0% WDG Herbicide* in a minimum of 30 gals of water per acre in the early morning to actively growing weeds and early in the season before surface matting occurs. Complete coverage and sufficient contact time of submersed weeds with *Semera 51.0% WDG Herbicide* is required for optimal performance. Application of *Semera 51.0% WDG Herbicide* with subsurface trailing hoses designed to distribute the herbicide within the plant stand will provide more effective and longer term control of submersed weeds. Use Table 7, *Subsurface Application Rates* to determine the amount of *Semera 51.0% WDG Herbicide* needed to achieve desired concentration at different water depths. Use higher concentrations when weed biomass is heavy and/or weeds are more mature and topped out. Any untreated plants that are left in the water column can re-infest treated areas that had previously been controlled. If a second application is required to provide control, it is recommended that a treatment be made once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying *Semera 51.0% WDG Herbicide* to densely packed actively growing submersed weeds, a rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat submersed weeds in sections to avoid a rapid decrease in dissolved oxygen.

Semera 51.0% WDG Herbicide may be tank mixed with other registered submersed applied herbicides for enhanced control of submersed and floating weeds.

APPLICATION EQUIPMENT

To improve distribution in the water column and ensure adequate coverage apply *Semera 51.0% WDG Herbicide* with subsurface trailing hoses in order to place the herbicide under the surface and throughout the biomass of aquatic vegetation. Keep swath width to a minimum in order to maximize contact with submersed aquatic vegetation.

Information on Hydrilla Control in Florida

Semera 51.0% WDG Herbicide should be applied as a subsurface treatment for hydrilla control. For best control of hydrilla apply during the late Winter/early Spring and/or early to late Fall. Efficacy of *Semera 51.0% WDG Herbicide* will be enhanced at these timings due to lower potential biomass present and lower pH of the water. If applied to mature topped out hydrilla, *Semera 51.0% WDG Herbicide* will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mixing *Semera 51.0% WDG Herbicide* with other registered herbicides is recommended, especially if hydrilla is approaching maturity or biomass is heavy.

TABLE 7. SUBSURFACE APPLICATION RATES

WATER DEPTH (FEET)	POUNDS OF *SEMERA 51.0% WDG HERBICIDE* REQUIRED PER SURFACE ACRE TO ACHIEVE DESIRED WATER CONCENTRATION		
	200 PPB	300 PPB	400 PPB
1	1.1	1.6	2.1
2	2.1	3.2	4.2
3	3.2	4.8	6.4
4	4.2	6.4	8.5
5	5.3	8.0	10.6
6	6.4	9.5	12.7
7	7.4	11.1	14.8

Example: To achieve an initial concentration of 200 ppb of flumioxazin in a 4 foot deep water column, apply 4.2 lbs of *Semera 51.0% WDG Herbicide* per surface acre.

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STORAGE AND DISPOSAL

PESTICIDE STORAGE

Keep pesticide in original container.
Store in a cool, dry, secure place.
Do not put formulation or dilute spray solution into food or drink containers.
Do not store or transport near feed or food.
Not for use or storage in or around the home.
For help with any spill, leak, fire or exposure involving this material, call CHEMTREC day or night within USA and Canada: 1-800-424-9300 CCN 712313 or +1 703-527-3887 (collect calls accepted).
Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

PESTICIDE DISPOSAL

Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Clean container 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. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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