CONTROL OF SUBMERSED WEEDS USING SUBSURFACE APPLICATION

General Information

GENERAL INFORMATION

Tradewind Herbicide is a selective herbicide that will control aquatic weeds in lakes, ponds, nonirrigation canals and other water bodies with limited or no outflow. Tradewind Herbicide is formulated as an 80 percent soluble powder and is packaged in water soluble packets that are mixed with water and applied to aquatic areas.

Tradewind Herbicide may be applied as a subsurface application targeting submerged aquatic weeds or as a surface application targeting floating and emergent undesirable aquatic weeds. Tradewind Herbicide controls weeds by inhibiting acetolactate synthase (ALS), a key enzyme in the biosynthesis of the branchedchain amino acids isoleucine, leucine, and valine. Symptoms of aquatic plants after treatment with ALS inhibitors include cessation of growth, discoloration of plant tissue with some yellowing and reddening of leaves and stems, followed by necrosis and death of plants. Symptoms occur slowly and may take two months or longer to fully affect target plants. The level and speed of control will be influenced by species, growth stage, growth rate and exposure time of targeted species, and the rate and timing of application. For best results, apply Tradewind Herbicide in the spring when plants are actively growing. Application to more mature or slow growing plants may decrease the speed and/or level of control.

Tradewind Herbicide may be applied to the following slow moving or quiescent bodies of water where there is minimum or no outflow:

- Bayous

- Drainage ditches

- Lakes

- Marshes

- Non-irrigation canals

- Ponds

- Reservoirs

Efficacy of subsurface applications may be decreased if exposure of targeted plants can not be maintained for a sufficient time. Insufficient exposure time may result from rapid inflow of fresh water into treated areas, and/or small spot or shoreline treatment within larger water bodies. Application to public aquatic areas may require approval and/or permits. Consult with local or state agencies, if required.

Refer in the label for tank mix information.

USE RESTRICTIONS FOR ALL APPLICATIONS

- Do not apply into flowing water, intertidal or estuarine areas.

- There is no post-application holding restriction against use of treated water for drinking or recreational recreational purposes (e.g. swimming, fishing).

- Do not apply to water utilized for crayfish farming.

- Important: This product is a herbicide and is active at low concentrations. Do not use treated water to irrigate food or ornamental crops until the concentration of Bispyribac-sodium in water is less than or equal to 1 ppb. Analyze water samples with Enzyme-Linked Immunosorbent Assay (ELISA) or other approved analytical methods.

- Treated water may not be used as a water source for livestock until the concentration of Bispyribacsodium in water is < 1 ppb.

- Do not make subsurface applications to water bodies subject to rapid dilution.

- When applying foliar sprays, do not allow spray mist to drift on to desirable broadleaf plants or injury may result. To minimize potential for spray drift, refer to the Spray Drift Management section of the label.

- The use of this product may result in a drop in dissolved oxygen (due to the decay of target and non-target plants coupled with decreased oxygen production via loss of photosynthesis) in the treated water body which may, in turn, indirectly impact

non-target plants and animals.

RESISTANCE MANAGEMENT

This product is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Tradewind Herbicide and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same area 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 this product or other Group 2 herbicides.

To delay herbicide resistance:

- Alternate herbicides used for aquatic weed control when possible.

- 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 herbicide resistance management and/or integrated weed management recommendations.

ADDITIVES

When applying Tradewind Herbicide to the foliage of floating or emerged aquatic weeds, mix with an adjuvant approved for use in aquatic habitats. Valent recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Mix Tradewind Herbicide with a non-ionic surfactant containing at least 80% active ingredient. Follow adjuvant manufacturer’s label rates. Verify mixing compatibility with a jar test before using.

Refer in the label for other mixing instructions.

Limitations, Restrictions, and Exceptions

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Plants that are partially controlled may show herbicide stress during active growth,

but are less likely to be killed by treatment. Use of lower labeled rates will increase the level of selectivity to desirable vegetation.

Best results with Tradewind Herbicide will be achieved when applied to young and actively growing submersed weeds that have limited biomass.

Subsurface Application Rates

Apply Tradewind Herbicide at a rate that will produce an initial concentration of 20 to 45 ppb in the water column of the treatment zone. Use the higher concentrations when weed biomass is heavy, when weeds are more mature and topped out, and/or when treating less susceptible plants.

(Refer to table in the label under this section to determine amount of Tradewind Herbicide needed to achieve desired concentration at different water depths.)

For optimal control, repeat applications to maintain desired water column concentrations of Tradewind Herbicide for 60 to 90 days after initial application, or until target weeds are controlled. Do not reapply within 14 days after initial application. Do not exceed 4 applications per year.

Multiple applications (up to 4 per year) of Tradewind Herbicide at lower rates may be needed in water bodies where there is a requirement for selective weed control, or the need to control weed species with a longer exposure time requirement. For subsurface applications, do not allow the water concentration to exceed 45 ppb of Tradewind Herbicide in the treatment zone for any application (either initial or when retreating to maintain the effective water concentration). A maximum of 4 applications is allowed per year.

The use of ELISA (Enzyme-Linked Immunosorbent assay) analysis or other analytical methods is recommended to determine if and when it is necessary to make sequential applications of Tradewind Herbicide.

Application Equipment

To ensure adequate coverage, apply Tradewind Herbicide with weighted trailing hoses in order to place the herbicide under the surface and throughout the biomass of aquatic vegetation. Tradewind Herbicide may also be applied with handguns to the water surface and will adequately mix with the water column. Keep swath width to a minimum in order to maximize contact with submersed aquatic vegetation.

Information on Hydrilla Control

For best control of hydrilla, apply during late Winter through Spring (February through May). Efficacy of Tradewind Herbicide will be enhanced during this period due to the combination of lower initial plant biomass and high growth rates.

Tank Mixes With Other Aquatic Herbicides

Tradewind Herbicide may be tank mixed with other aquatic herbicides and applied as a subsurface treatment for hydrilla control. Hydrilla control may be improved by tank mixing Tradewind Herbicide with other approved aquatic herbicides or applying contact herbicides in sequence or in combination with Tradewind Herbicide.

Method
Subsurface
Rates
field_rates 0

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Timings
Postemergence (Weed)