CONTROL OF WATERHYSSOP

General Information

PRODUCT INFORMATION

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

Regiment CA Herbicide is a selective, postemergence contact herbicide which provides control of many weeds infesting rice. It has an exceptionally wide window of application and should be used as an integral part of a weed control program in conjunction with a resistance management strategy.* The mode of action is the inhibition of the acetolactate synthase (ALS) enzyme, and thus, activity is relatively slow, 14 to 21 days for complete control. Susceptible weeds turn yellow and stop growing 3 to 7 days after treatment. Browning of sensitive weeds is evident in 7 to 14 days after treatment with death of the stem and roots occurring within 14 to 21 days after treatment. Regiment CA Herbicide is not a residual/soil active herbicide and will not prevent reinfestation of weeds which germinate after application. Thorough application spray coverage of weed foliage is needed for acceptable control. Regiment CA Herbicide is rainfast 8 hours after application. Temporary injury to rice may occur after application, but injury is transient and yields are not adversely affected. Fertilizer topdressing will speed temporary injury recovery.

*See resistance management statement on this label.

Adjuvant: Application of Regiment CA Herbicide must include a surfactant unless otherwise specified in another section of this label or in supplemental labeling. Refer to the Valent bulletin “Approved Surfactants for use with Regiment CA Herbicide” for a list of approved surfactants and rates. Use of surfactants other than the ones specified is done at the sole risk of the user. (28% or 32% UAN (Urea Ammonium Nitrate) at 1% to 2% v/v may be used in conjunction with an approved surfactant). Refer to the Valent Product Bulletin “Approved Surfactants for use with Regiment CA Herbicide” for additional information.

DRY-SEEDED OR WATER-SEEDED
- Regiment CA Herbicide may be applied to rice after the 4-leaf stage of development until the panicle initiation (green ring/just prior to joint movement)
stage of development. Do not apply to rice before the 4th leaf is fully expanded or after panicle initiation. Regardless of seeding method, rice must have the 4th leaf fully expanded and the root system must be completely below the soil surface prior to Regiment CA Herbicide application.

- Pinpoint or Leathers Flood Culture: After seeding rice into the initial (seedling) flood, drain the field when the root is approximately 1/4 inch long, but before shoot growth has been initiated. This will allow the root to peg (tack) to the soil. Apply Regiment CA Herbicide after draining when the rice seedling is in at least the 4-leaf (fully expanded) stage and the root system is completely covered with soil. At application, the soil should be wet to the surface and the weeds actively growing. If soil is allowed to dry after application, a reduction in efficacy and/or weed re-growth may occur. Bring the field to pinpoint flood level 2 to 3 days after application. Prolonged drainage can stress the rice plant and/or allow for subsequent weed germination which could potentially result in yield reduction.

- Dry-Seeded Pre-Flood Culture: At application, the soil should be wet to the surface and the weeds actively growing. Following application, wait at least one day for herbicide uptake then establish the permanent flood as soon as the rice will tolerate flooding. Under conditions in which the permanent flood is delayed, flush as necessary to maintain rice growth and maintain moisture in the weed root zone in order to ensure active weed growth. If soil is allowed to dry after application, a reduction in efficacy and/or weed re-growth may occur. Establishing the permanent flood 2 to 7 days after application will optimize weed control. Reinfestation of weeds and/or weed re-growth may occur if a permanent flood is not established in a timely manner.

- Post-Flood Application: Prior to application, the floodwater must be lowered so that 70% of the weed plant surface is above the floodwater. Failure to do so will result in insufficient weed control. Bring the field to normal flood level 2 to 3 days after application.

- When nighttime temperatures are below 55°F for 3 or more consecutive nights before or after Regiment CA Herbicide application, loss of weed control and/or weed re-growth may occur.

- Refer to the table: “Product Use Rates/Weeds”.

- Use the upper end of the recommended use rate range when weed populations
are approaching the maximum controllable size and/or weed infestation is severe. When weed populations are severe, a second application of Regiment CA Herbicide or another herbicide may be necessary.

- Multiple applications of Regiment CA Herbicide may be made as long as the total seasonal amount does not exceed 1.06 oz per acre and at least 3 weeks elapse between applications.

- Herbicide Resistant Watergrass Biotypes (Early and Late): In localized specific areas, these species have exhibited resistance to various herbicides. If resistant species have been documented in your field(s), consult your crop advisor or local extension service for further information. Resistance management will prolong the usefulness of all rice herbicides.

- When making application of Regiment CA Herbicide for control of Echinochloa phyllopogon (rice mimic), use the 0.8 oz/A rate plus the appropriate surfactant. Do not tank mix Regiment CA Herbicide with insecticides or other herbicides. In fields where there are severe populations of this species, it may be necessary to make an additional application of another herbicide such as propanil.

- Do not use Regiment CA Herbicide on the rice variety CM 101. Pubescent (hairy) leaf varieties are more sensitive to Regiment CA Herbicide than glabrous (smooth) leaf varieties.

- Varieties with low seedling vigor such as the Japanese cultivars and M-206 may be more sensitive to Regiment CA Herbicide, especially under stress conditions.

- Fertilizer top-dressing will speed recovery from any temporary injury that may occur.

METHOD OF APPLICATION
Regiment CA Herbicide is a contact herbicide and does not have any systemic activity and thus, thorough coverage is essential for acceptable weed control. Inadequate coverage will result in unacceptable weed control and/or weed re-growth. Uniformly apply Regiment CA Herbicide or Regiment CA Herbicide tank mixes by aircraft in no less than 10 gallons of water per acre total spray volume or by ground equipment in a minimum of 15 to 20 gallons of water per acre total spray volume. Any factor, such as reduced spray volume, which adversely affects coverage and canopy penetration will have a negative effect on the performance of
Regiment CA Herbicide. Use nozzle types and nozzle arrangements which will provide maximum coverage and minimize the potential for off target movement of spray particles. Droplet size for both ground and air applications should be in the “Medium” size category as defined in the August 1999 ASAE S572 publication entitled, “Spray Nozzle Classification by Droplet Spectra”. Refer to that publication for additional information. When making application with ground equipment, use flat fan nozzles only. Do not use air inducting or flood type nozzles. Do not use ditch water, turbid or high sediment water in spray equipment. Buffer application water if the pH is above 7.0 or below 6.0. (Refer to label section “Spray Drift”).

MIXING AND SPRAYING EQUIPMENT PREPARATION AND CLEANUP

PRECAUTION: DO NOT USE CHLORINE BLEACH WITH AMMONIA. REMOVE ALL TRACES OF LIQUID FERTILIZER CONTAINING ANY FORM OF AMMONIA OR AMMONIUM BEFORE ADDING ANY CHLORINE SOURCE SUCH AS CHLORINE BLEACH.

Prior to using Regiment CA Herbicide, thoroughly drain, clean, and rinse all mixing and spraying equipment that will come in contact with Regiment CA Herbicide. Follow the cleanup procedures recommended by the manufacturer of the previously sprayed product. Failure to remove all deposits of previously sprayed products may result in collection of Regiment CA Herbicide residues and inhibit cleanup of mixing and spraying equipment after Regiment CA Herbicide use. Failure to remove all deposits of previously sprayed products may also result in a reduction in the efficacy of Regiment CA Herbicide or crop injury.

Residual amounts of herbicide in or on mixing or spraying equipment may have an adverse effect on subsequently sprayed crops. Thoroughly drain, clean and rinse all mixing and spraying equipment including tanks, booms, hoses, strainers, screens, and nozzles immediately after use. Use the following procedure:

1. Remove all physical residues.

2. Thoroughly drain and rinse tanks, booms, and hoses with clean water.
3. Fill the tank one half full of clean water and use a spraying/mixing tank cleaner that DOES NOT contain chlorine. Fill the remainder of the tank with clean water. Let agitate/recirculate according to the directions of the cleaner manufacturer. Thoroughly flush the boom and hoses before draining.

4. Rinse all hoses, tanks, nozzles, strainers, and booms with clean water to remove the tank cleaner. Follow the directions provided by the tank cleaner manufacturer.

5. Fill the tank half full of clean water and add one (1) gallon of 3% active household ammonia for every 100 gallons of water the tank will hold. Fill the remainder of the tank with clean water and allow the solution to agitate/recirculate for 15 minutes. Thoroughly flush the ammonia cleaning solution through the boom, hoses, nozzles, screens, and strainers before draining the tank.

6. Remove the strainers, nozzles, and screens and clean separately in a solution of household ammonia and water.

7. Replace the strainer(s), nozzles, and screens.

8. Repeat Step 5.

9. Thoroughly rinse the tank with clean water and flush the water through the boom, nozzles and hoses in order to remove all traces of ammonia.

10. Dispose of the rinsate on site or at an approved waste disposal facility.

Regiment CA Herbicide may remain in the spray or mixing tank for up to 3 days following mixing without loss of activity. If the spray solution is allowed to sit, thoroughly agitate before use. Carefully follow clean out instructions after the tank is emptied.

RESISTANCE MANAGEMENT
Regiment CA Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to herbicides in various mode of action classes. Resistant biotypes may eventually dominate the weed population if the same class of chemistry/ mode of action herbicides 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

- Regiment CA Herbicide is a Group 2 herbicide.

- Avoid the use of herbicides that have a similar target site mode of action in consecutive years. Herbicide use should be based on an 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 1-800- 682-5368.

USE PRECAUTIONS

- Water drained directly from treated fields must not be used to irrigate other crops.

- DO NOT double spray ends of field.

- DO NOT apply more than 1.06 oz of Regiment CA Herbicide per acre per year. DO NOT apply to second crop (stubble/ratoon crop) rice.

- Regiment CA Herbicide is a contact herbicide which is not soil active and does not provide residual activity. Reinfestation of weeds may occur if a permanent flood is not established in a timely manner.

- Any environmental (e.g., temperature, drought, etc.) or other stress (e.g., herbicide injury, fertilizer injury or nutrient deficiencies, etc.) factors which decrease plant metabolism and growth may reduce Regiment CA Herbicide efficacy and increase rice injury. DO NOT APPLY TO STRESSED RICE OR WEEDS.
- Temporary injury, chlorosis and/or stunting may occur after application but injury is transient. Fertilizer top-dressing will speed temporary injury recovery. Medium grain varieties may be more sensitive than long grain varieties. Pubescent (hairy) leaf varieties may be more sensitive to Regiment CA Herbicide than glabrous (smooth) leaf varieties.

- Varieties with low seedling vigor such as the Japanese cultivars and M-206 may be more sensitive to Regiment CA Herbicide, especially under stress conditions.

- Water-seeded rice that has not fully pegged (rice root system not completely below the soil surface) is susceptible to significant injury from Regiment CA Herbicide, regardless of number of leaves.

- DO NOT use Regiment CA Herbicide on the first rice crop grown in fields that have been land leveled resulting in severe cut and heavy fill areas (does not apply to maintenance leveling).

- Regiment CA Herbicide is a contact herbicide and does not have any systemic activity and thus, thorough coverage is essential for acceptable weed control. Inadequate coverage will result in unacceptable weed control and/or weed regrowth.

- When weed populations are severe, a second application of Regiment CA Herbicide or another herbicide may be necessary.

- Do not make an application of methyl parathion or malathion within 7 days of a Regiment CA Herbicide application.

- Do not apply to rice paddies where commercial crayfish farming is practiced.

Limitations, Restrictions, and Exceptions

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**Method**

- Broadcast/Foliar Air
- Broadcast/Foliar Ground
Rates

**field_rates 0**

- Restricted Entry Interval

12 hours

Timings

1 leaf up to 4 leaf growth stage of the weed.