

# **RICE (CALIFORNIA) - WEEDS CONTROLLED (TILLERED GRASSES)**

## General Information

## Product Information

RebelEX CA herbicide is a postflood, postemergence herbicide for selective control of susceptible grass, broadleaf, and sedge weeds in rice in California. Only susceptible weeds emerged at the time of application will be controlled. A spray volume of 10 gallons or more per acre (gpa) and uniform coverage are required for optimum performance. A crop oil concentrate at 2.5% v/v, or a methylated seed oil or vegetable oil concentrate, at specified label use rates is required with RebelEX CA. RebelEX CA is rainfast within 2 hours after application.

Rice crops grown under adverse environmental conditions, such as extreme cold or heat, may express temporary crop injury when RebelEX CA is applied, including slight height reduction or root stunting. Any crop stress or environmental factors which decrease plant metabolism and growth may reduce weed control efficacy and crop tolerance. Such effects are transient and do not affect yield. RebelEX CA may be used on all rice varieties; however, it is important to recognize that the degree of crop tolerance may vary depending upon variety and environmental conditions. Do not apply RebelEX CA to wild rice.

## Use Precautions and Restrictions

- Preharvest Interval: Do not apply within 60 days of rice harvest.
- RebelEX CA may not reliably control known ACC'ase or ALS resistant weed biotypes.
- Do not apply RebelEX CA directly to, or otherwise permit RebelEX CA to come into contact with, commercially produced broadleaf crops such as cotton, green or dry beans, melons, tomatoes, grapes, pome/stone/fruit trees, peaches, nectarines, all vegetable crops, all perennial tree or vine crops as well as commercially grown flowers, ornamental shrubs or trees, or other desirable commercially produced broadleaf plants, as serious injury may occur. Do not permit spray mists containing RebelEX CA to drift onto desirable broadleaf plants.
- Do not apply RebelEX CA directly to, or otherwise permit RebelEX CA to come into contact with, commercially produced non-target cereal and grass crops such as

- corn, sorghum, wheat, sugar cane, turfgrass, sod farms, grass grown for seed, etc. Do not permit spray mists containing RebeLEX CA to drift onto desirable grass plants.
- Do not make more than one application or apply more than 20 fl oz of RebeLEX CA per acre during the growing season.
  - One sequential application of Clincher® CA herbicide can be made greater than 10 days before or after an application of RebeLEX CA depending upon the rate of RebeLEX CA applied. Follow all label use directions for Clincher CA
  - After an application of RebeLEX CA, begin re-flooding three hours after application. For best results, fields should be completely re-flooded 24 to 48 hours after application.
  - Do not apply RebeLEX CA to a field treated in the same year with an application of Granite® GR herbicide or Granite CA.
  - Do not overlap or double spray ends of fields.
  - Poor weed control may result from application of RebeLEX CA made to plants under stress from abnormally hot or cold weather; environmental conditions such as drought, hail damage, or high pH soils; or prior herbicide applications.
  - Do not allow tank mixes of RebeLEX CA to sit overnight.
  - Do not tank mix RebeLEX CA with malathion or methyl parathion. Do not make an application of malathion or methyl parathion within 7 days of an application of RebeLEX CA.
  - Application of RebeLEX CA to fields which have been leveled within 12 months prior to application may result in serious rice injury in areas that have been cut or filled. This does not apply to normal annual land planning activities.
  - Application of RebeLEX CA to rice grown in soils with pH >7.8 or high salt content may result in serious rice injury.
  - Do not apply RebeLEX CA where runoff or irrigation water may flow directly onto agricultural land other than rice fields.
  - Do not rotate treated land to crops other than rice for three months following application.
  - Do not use RebeLEX CA for weed control in wild rice.
  - Do not fish or commercially grow fish, shellfish or crustaceans on treated acres during the year of treatment.
  - Do not make aerial applications of RebeLEX CA when wind speeds are less than 3 mph or greater than 10 mph.
  - Do not make ground applications of RebeLEX CA when wind speeds are greater than 10 mph.

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

## Spray Drift Management

Avoiding spray drift is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. Make applications only when there is little or no hazard from spray drift. The applicator, crop consultant, and grower are responsible for considering all of these factors when making the decision to apply this product.

Avoid all direct or indirect contact with non-target plants. Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants to minimize exposure.

## Buffer Zones

Buffer zones are defined as the minimum distance between the application site and the sensitive crop. The buffer zones listed in the table in the label must be followed for ground applications of RebelEX CA.

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

The following drift management requirements must be followed to avoid off-target movement from aerial applications:

- The distance between the outer most nozzles on the boom must not exceed 70% of the wingspan of fixed wing aircraft or 80% of the helicopter rotor width.
- Nozzle set up must use a medium spray quality category per ASABE S-572 Standard.

Where states have more stringent regulations, they must be followed.

In general, the best drift management strategy is to apply the largest droplets that provide sufficient coverage and control.

## Endangered Species

If endangered plant species occur in the proximity of the application site, the following mitigation measure is required to avoid adverse effects:

- Leave untreated buffer zones of 85 feet for ground applications or 470 feet for aerial applications.

To determine whether your county has an endangered terrestrial plant species, consult <http://www.epa.gov/espp/usa-map.htm>. Endangered Species Bulletins may also be obtained from extension offices or state pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations of terrestrial endangered plants occur in the area to be treated.

### Application Directions

#### Environmental Conditions and Herbicidal Activity of RebelEX CA

Best weed control results are obtained when RebelEX CA is applied to small, actively growing weeds, when daytime and nighttime temperatures are warm (60°F or more), and soil moisture is adequate to support active weed growth prior to and following application. If weeds are under drought stress, delay application until more favorable conditions resume. Application when weeds are moisture stressed or larger than the recommended size for control may result in only partial control.

#### Ground Application

Apply in a spray volume of 10 gpa or more when applying by ground. Use coarse or coarser nozzle spray quality per S-572 ASABE standard; see USDA literature or nozzle manufacturer guidelines. Follow nozzle manufacturer's recommendations for nozzle pressure, spacing and boom height to provide a uniform spray pattern. Follow appropriate Spray Drift Management information where drift potential is a concern. Do not ground apply RebelEX CA when wind speeds are greater than 10 mph.

## Application Timing

For water seeded and drill seeded rice, apply RebeEX CA from the 1 leaf stage up to 60 days before harvest. Within this application window, application timing is dependent upon cultural practices and optimum timing for weed species present. (See Application Rates and Weeds Controlled table.) Do not apply if crop or weeds are under drought stress. A single postflood application is recommended.

One sequential application of Clincher CA can be made greater than 10 days before or after an application of RebeEX CA depending upon the rate of RebeEX CA applied. Follow all label use directions for Clincher CA.

## Water Management

Fields must be partially drained to expose weeds prior to application. Residual water remaining in the field does not adversely affect weed control so long as weeds are at least 70% exposed. For delayed pin point application, do not allow excessive drying of the soil which may cause the weeds to become drought stressed, resulting in unacceptable weed control. For best results, soils should be moist at application and maintain good soil moisture after application by flushing or rainfall until establishment of permanent flood.

## Re-Flood Timing

After an application of RebeEX CA, begin re-flooding 3 hours after application. For best results, fields should be completely re-flooded 24 to 48 hours after application.

## Resistance Management

The mode of action of RebeEX CA is the inhibition of the acetolactate synthase (ALS) enzyme and acetyl co-enzyme A carboxylase (ACC'ase) enzymes. Weed populations may develop biotypes that are resistant to different herbicides with the same mode of action. If herbicides with the same mode of action are used repeatedly in the same field, resistant biotypes may eventually dominate the weed population and may not be controlled by these products. Other resistance mechanisms, such as enhanced metabolism, may also exist and may cause reduced weed control.

This product should be used as part of an Integrated Pest Management (IPM) program that may include biological, cultural, and chemical practices aimed at

preventing economic pest damage. Application of this product should be based upon appropriate IPM and resistance management strategies and practices that delay or reduce the development of resistant weed biotypes. Such practices include field scouting, use of weed free crop seed, proper water management, correct weed pest identification, following rotational practices outlined on pesticide labels, and treating when target weed populations are at the correct stage and economic thresholds for control. Make only one application per year of RebelEX CA. Do not apply RebelEX CA to a field treated in the same year with an application of Granite GR or Granite CA.

To delay development of herbicide resistance, the following practices are recommended:

- Always use at least the minimum specified rate of formulated product per acre and observe all use rate instructions.
- The use of herbicides with the ALS same mode of action should not be used in sequential applications with RebelEX CA unless tank mixed with an alternative mode of action product.
- ALS herbicides should not be used in consecutive years unless alternated with non-ALS herbicides.
- Herbicides should be used based upon an IPM program.
- Monitor treated areas and control escaped weeds.
- Contact local extension or crop advisor for IPM and resistance management information.

#### Limitations, Restrictions, and Exceptions

##### Weeds Controlled

- RebelEX CA may not reliably control known ALS and ACC'ase resistant weed biotypes.

##### Application Rates

- If RebelEX CA is applied as a rescue treatment (e.g., heavy weed infestations, headed weeds and/or previously untreated areas), it should be considered an emergency salvage treatment and good control of labeled weeds should not be expected. Poor control and regrowth of treated weeds may occur.

Note: Do not make more than one application or apply more than 20 fl oz of RebelEX CA per acre during the growing season.

For tank mixing options and instructions, refer to the Mixing Directions section.

Method

[Broadcast/Foliar Ground](#)

Restricted Entry Interval

12 hours

Timings

[Postemergence \(Weed\)](#)