

Specimen Label



Granite® GR

HERBICIDE

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For selective weed control in water-seeded rice in California

Active Ingredient:

penoxsulam: 2-(2,2-difluoroethoxy)-N-(5,8-dimethoxy[1,2,4] triazolo[1,5c]pyrimidin-2-yl)-6-(trifluoromethyl)benzenesulfonamide.....0.24%

Other Ingredients.....99.76%

Total100.00%

Contains 0.24 lb of active ingredient per 100 lb bag

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-501

Keep Out of Reach of Children

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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

Engineering Controls

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Environmental Hazards

Except when treating rice fields as specified in this product label, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

Directions for Use

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

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry 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 any waterproof material
- Shoes plus socks

Storage and Disposal

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

Pesticide Storage: Store in cool dry place in original container.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Nonrefillable rigid containers 5 gallons or less:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Nonrefillable nonrigid containers:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Refillable rigid containers larger than 5 gal:

Container Reuse: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Nonrefillable rigid containers larger than 5 gal:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

General Information

Granite® GR herbicide is a postflood, postemergence herbicide for selective control of susceptible grass, broadleaf, and sedge weeds in California rice. Susceptible weeds at the 1 to 3 leaf stage emerged at the time of application will be controlled (refer to Application Rates and Weeds Controlled table). Apply Granite GR directly into flooded fields when rice is at a minimum 2 1/2 leaf stage of growth. At this stage, the second leaf is fully expanded or unfurled with the third leaf emerged but not expanded (refer to Application Timing section). Average water depth at application should be maintained at 4 to 5 inches, with a minimum water depth of 3 inches in the shallowest part of the field with completely submerged weeds and no exposed soil (refer to Water Management section).

Rice crops grown under adverse environmental conditions, such as extreme cold or heat, may express temporary crop injury when Granite GR 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. Fertilizer top dressing will speed crop recovery.

General Use Precautions and Restrictions

- **Preharvest Interval:** Do not apply Granite GR within 60 days of rice harvest.
- Granite GR may not reliably control known ALS resistant weed biotypes.
- Applications made to greater than 3 leaf weeds, dense weed populations, and/or average water depth greater than 6 inches may result in reduced weed control.
- Do not apply Granite GR following rainfall until the water depth in checks or basins has been adjusted to meet the correct water depth requirements.
- Static water conditions for 7 days following an application of Granite GR are recommended for best results. It is important not to allow the minimum water depth to drop below 3 inches; therefore, adding water may be required. Water should be trickled in or added very slowly.
- For best results, it is recommended that water not be released for 14 days following an application of Granite GR. During this time water depth should be maintained or can be increased as rice grows. Early release of water may result in reduced weed control.
- Shallow water conditions can result in reduced weed control as it may promote additional weed flushes and can increase the potential for crop injury.
- Reduced weed control can be expected at field water inlets due to dilution and movement of water.
- Do not apply where runoff or irrigation water may flow directly onto agricultural land other than rice fields.
- The use of Granite GR on rice varieties with known reduced seedling vigor when established and grown under adverse weather conditions is not recommended. Use care when using Granite GR on newly released rice varieties until variety tolerance can be determined.
- Application of Granite GR to fields that 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.
- Under poor field preparation practices (i.e., lack of soil aeration, unlevelled ground, large clods, excessive crop residue, weeds emerged prior to flooding, etc.), reduced weed control may occur when using Granite GR.
- Cold and/or alternating weather conditions during the planting season can result in prolonged weed seed germination resulting in reduced weed control.
- Do not make more than 1 application or apply more than 18.5 lb of Granite GR (0.044 lb ai penoxsulam) per acre during the growing season.
- Do not apply Granite SC to the same field in the same year following an application of Granite GR.
- Do not rotate treated land to crops other than rice for 3 months following application.
- Do not use on wild rice.
- Do not fish or commercially grow fish, shellfish or crustaceans on treated acres during the year of treatment.
- **Chemigation:** Do not apply this product through any type of irrigation system.

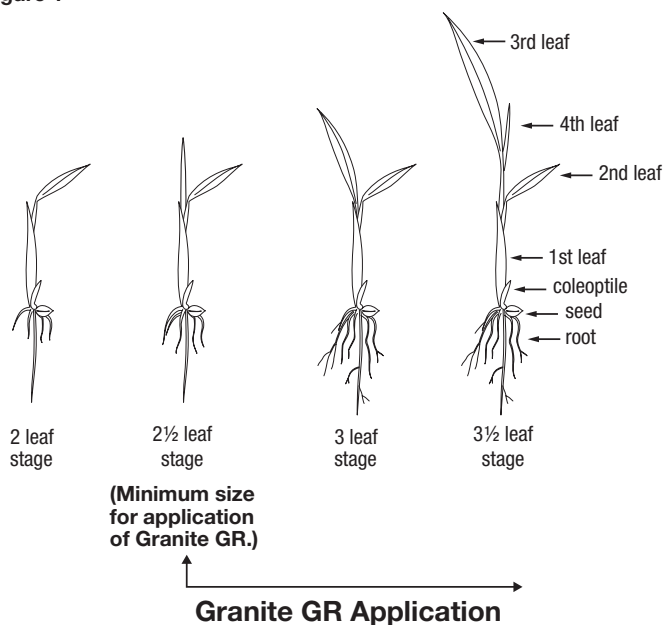
Best Management Practices for Aerial Application

Equipment used in the application of Granite GR should be carefully calibrated before use and checked frequently during application to be sure it is working properly and delivering a uniform distribution pattern. Avoid overlaps that will increase Granite GR dosage above recommended limits. Aerial applications of Granite GR should not be made when the wind velocity exceeds 10 mph.

Application Timing

Application timing is dependent upon the proper rice growth stage and optimum timing for weed species present. Granite™ GR herbicide should be applied to rice after it reaches a minimum of 2 1/2 leaf stage (Figure 1); at this stage the second rice leaf is fully expanded or unfurled with third leaf emerged. Granite GR should be applied when susceptible weeds are from the 1 to 3 leaf stage up to 60 days before harvest. (See Application Rates and Weeds Controlled table.)

Figure 1



It is important that the stage of rice be closely monitored prior to application to determine the correct timing for an application of Granite GR. Under cool growing conditions, rice development can be delayed; therefore, close crop development monitoring is recommended prior to application.

Water Management Recommendations

Immediately prior to application:

- Average water depth at application should be maintained at 4 to 5 inches, with a minimum water depth of 3 inches in the shallowest part of the field, with completely submerged weeds and no exposed soil.
- If rainfall occurs prior to application, do not apply Granite GR until water depth in checks or basins can be adjusted to meet the correct water depth requirements.

First week following application:

- For best results, maintain a static flood for 7 days following application.
- During the static flood period it is important to maintain a minimum water depth of 3 inches. If necessary, water can be slowly added or trickled in to maintain water depth.
- If water is lost from a basin or check, re-flood immediately. Early release of water may result in reduced weed control.
- Failure to maintain the recommended flood depth after an application of Granite GR may result in reduced weed control or crop tolerance.

Second week following application:

- Following the 7-day static flood period, it is recommended that water not be released for an additional 7 days.
- During this time, water depth should be maintained or increased as rice grows.
- Shallow water conditions can result in reduced weed control as it may promote additional weed flushes.
- If water is lost from a basin or check, re-flood immediately. Early release of water may result in reduced weed control.

At the conclusion of the 2-week treatment period, it is important to manage water flood depth to prevent secondary weed flushes which can occur if water is released or lowered.

Resistance Management

The mode of action of Granite GR is the inhibition of the acetolactate synthase (ALS) enzyme. 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. Granite GR may not reliably control known ALS resistant weed biotypes.

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 on appropriate IPM and resistance management strategies and practices that delay or reduce the development of resistant weed biotypes. Such practices include, but are not limited to, 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 1 application per acre per year of Granite GR. Do not apply Granite GR to the same field in the same year following an application of Granite GR.

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

- Always use at least 15 lb per acre of formulated product and observe all label use rate instructions.
- The use of herbicides with the same mode of action should not be used in sequential applications.
- Herbicides should be used based on an IPM program.
- Monitor treated areas and control escaped weeds.
- Contact local extension or crop advisor for IPM and resistance management information.

Application Rates and Weeds Controlled (For Use in the State of California)

Weeds Controlled ¹ Common name (scientific name)	Application Rate and Stage of Weed Development
	15 lb/acre ²
barnyardgrass (<i>Echinochloa crus-galli</i>) California arrowhead (<i>Sagittaria montevidensis</i> spp. <i>Caelycina</i>) common waterplantain (<i>Alisma plantago-aquatica</i>) ducksalad (<i>Heteranthera</i> spp) monochoria (<i>Monochoria</i> spp) watergrass (early and late) (<i>Echinochloa</i> spp)	up to 3 leaf
Weeds Suppressed	
Gregg's arrowhead (<i>Sagittaria longiloba</i>) redstem ³ (<i>Ammannia</i> spp) rice mimic (<i>Echinochloa</i> spp) ricefield bulrush ³ (<i>Scirpus mucronatus</i>) smallflower umbrellaplant (<i>Cyperus difformis</i>)	

¹Granite GR may not reliably control known ALS resistant weed biotypes. Weeds that emerge after the treatment period will not be controlled.

²Under conditions of late application when weeds are greater than 3 leaf stage, dense weed populations, or average water depth greater than 6 inches deep, 18.5 lb of Granite GR (0.044 lb ai penoxsulam) per acre may be applied. Application of Granite GR under these conditions may result in reduced weed control.

³Ricefield bulrush (*Scirpus mucronatus*) and redstem (*Ammannia* spp) are effectively controlled if emerged at the time of treatment with Granite GR.

Note: Do not make more than 1 application or apply more than 18.5 lb of Granite GR (0.044 lb ai penoxsulam) per acre during the growing season.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Corteva Agriscience warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Corteva Agriscience or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Corteva Agriscience's election, one of the following:

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

Corteva Agriscience shall not be liable for losses or damages resulting from handling or use of this product unless Corteva Agriscience is promptly notified of such loss or damage in writing. In no case shall Corteva Agriscience be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Corteva Agriscience or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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Corteva Agriscience LLC
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Revisions:

1. Throughout label, updated company name to Corteva Agriscience LLC and revised company address information