

## **PLEASE NOTE**

**This image contains more than one label approved for this product on this date.**

524-465

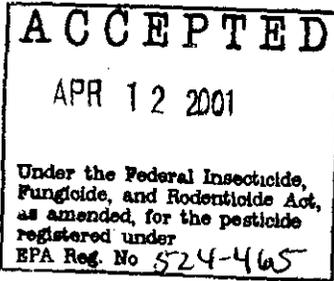
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# SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR PERMIT® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Permit herbicide and this supplemental.



## PERMIT® Herbicide by Monsanto

EPA Reg. No. 524-465

### PERMIT® HERBICIDE FOR POST-EMERGENT WEED CONTROL IN RICE

Keep out of reach of children  
**CAUTION!**

In case of emergency involving this product, Call Collect, day or night, (314) 694-4000.

#### DIRECTIONS FOR USE

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

This label must be in the possession of the user at the time of application.

See the "GENERAL INFORMATION" and "MIXING INSTRUCTIONS" sections of the label booklet for Permit herbicide for essential product information.

#### Environmental Hazards

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This pesticide is highly toxic to non-target plants. Do not apply to non-target areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of Federal Laws.

#### Weeds Controlled

Ricefield Bulrush	Smallflower Umbrellaplant
Redstem	California Arrowhead

#### Application Equipment and Instructions

Permit herbicide can be applied as a foliar spray or dry broadcast.

Permit herbicide can be applied using either ground or aerial equipment.

Ensure uniform application to avoid streaked, uneven or overlapped application. Calibrating spray equipment before each use will ensure proper application of Permit herbicide.

For best results, make applications to healthy, actively growing weeds avoiding applications when weeds are under disease stress or insect damage. Avoid rainfall or irrigation within 4 hours after application to ensure effectiveness of Permit herbicide.

Avoid disturbing treated areas for at least 7 days following application.

**CAUTION:** To ensure product effectiveness avoid using Permit herbicide on rice fields which have a history of weed biotypes resistant to Londax.

**Spray Drift Management**

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 and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. Chose nozzles and spray pressures that result in droplet sizes of 400 microns or greater.
2. The distance of the outer most nozzles on the boom must not exceed 2/3 the length of the wingspan or rotor.
3. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.
4. Altitudes of 10 feet above vegetation provide best coverage.
5. Do not fly within 100 feet of any crop other than rice. If wind up to 5 mph is blowing towards any crop other than rice do not apply within 500 feet of that crop. Winds blowing between 5 and 10 mph will require buffer zones in excess of 500 feet. Do not apply when winds are in excess of 10 mph or when inversion conditions exist.

The importance of spray droplet size:

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but may not prevent drift if applications are made improperly or under unfavorable environmental conditions (see the following Wind, Temperature and Humidity, and Temperature Inversion sections of this advisory).

Controlling initial droplet size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher flow rates produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation** - Orienting nozzles so the spray stream is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Controlling placement of spray droplets:

- **Boom length** - For some use patterns, reducing the effective boom length to less than ¼ of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application height** - Applications should not be greater than 10 feet above the top of the tallest plants unless a greater height is required for aircraft safety. Greater application heights result in greater droplet size reduction

through evaporation and greater movement in air currents. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

- **Application speed** - Slower aircraft speeds within a safe range will produce less air turbulence and fewer small droplets.
- **Swath adjustment** - When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (wind speed, droplet size, etc.).

Key environmental factors:

- **Wind** - Drift potential is lowest between wind speeds of 2-10 mph. However, many factors including droplet size and equipment type determine drift potential at any given speed. Application should be avoided when wind speeds are below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Applicators should be familiar with local wind patterns and how they affect spray drift.
- **Temperature and humidity** - When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.
- **Temperature inversions** - Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable air currents that are common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke detector. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive areas:**

Pesticides 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).



**RATE**

Apply Permit herbicide at 1 to 1 1/3 ounce by weight per acre, with total application rate not to exceed 1 1/3 ounce product by weight per acre per use season.

**GALLONAGE**

With all foliar applications of Permit herbicide use a minimum of 7.5 gallons of water per acre for aerial equipment and a minimum of 10 gallons of water per acre for ground equipment. It is best to apply spray solutions the day they are mixed.

**SURFACTANT**

It is best to use 0.25 to 0.5 percent nonionic surfactant which contains at least 80% active ingredient with foliar applications of Permit herbicide.

**TIMING**

Foliar applications of Permit herbicide may be made at the 3-5 leaf stage of rice when weeds have 2-4 leaves. Dry broadcast applications may be made at the 1-2 leaf stage of rice when weeds have two leaves or less.

Do not apply within 48 days of harvest.

**WATER MANAGEMENT**

Water levels in rice fields and checks should remain static (3"-4" depth) following dry broadcast applications of Permit herbicide. Do not reintroduce water into rice fields or checks for at least five days following dry broadcast applications of Permit herbicide. Rice fields and checks may be irrigated to maintain water level, but this may reduce weed control.

Control of emerged weeds with foliar applications is best when 70% - 80% of the weed foliage exposed. Control of submerged weeds is best when weeds have 2 leaves or less. Do not reintroduce water into rice fields or checks for at least 24 hours following foliar applications of Permit herbicide.

**SEQUENTIAL APPLICATIONS**

Permit herbicide may be applied sequentially with Ordram or Bolero. Read the Ordram and Bolero labels for application information, restrictions and precautions.

**TANK MIXTURES**

Permit herbicide may be applied as a tank-mix with propanil. Crop oil concentrate at 1% vol/vol may be used with Permit herbicide instead of nonionic surfactant.

**EQUIPMENT CLEANING**

Thoroughly clean application equipment immediately after Permit herbicide use and prior to spraying crops other than rice. Use a 1% solution of household ammonia to thoroughly rinse all surfaces, lines and hoses. Repeat the procedure with household ammonia then rinse with clean water.

Permit is a registered trademark of, and used under license from Nissan Chemical Industries, Ltd.

Ordram is a registered trademark of Zeneca, Inc., Wilmington, DE  
Bolero is a registered trademark of Valent USA Corp, Walnut Creek, CA

**Read the "LIMIT OF WARRANTY AND LIABILITY" statement in the label booklet for Maverick herbicide before using. These terms apply to this SUPPLEMENTAL LABELING, and if these terms are not acceptable return the product unopened at once.**

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St. Louis, Missouri 63167

03/12/2001



**NEXT**

**LABEL**

524-465

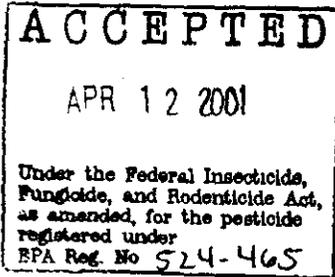
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# SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR SEMPRA® CA HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING. FOLLOW ALL APPLICATION DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL.

"Label" as used in this supplemental labeling refers to the label booklet for Sempra CA herbicide and this supplement.



EPA Reg. No. 524-465

APPLICATION IN TREE NUTS (Almonds, Beechnuts, Brazil nuts, Butternuts, Cashews, Chestnuts, Chinquapins, Filberts, Hickory nuts, Macadamia nuts, Pecans, Pistachios, Walnuts {Black and English}) FOR POSTEMERGENT CONTROL OF SELECT BROADLEAF WEEDS AND NUTSEDGE

Only in CALIFORNIA and ARIZONA.

Keep out of reach of children.

**CAUTION!**

In case of an emergency involving this product or for user safety information on this product, Call Collect, day or night (314) 694-4000.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This label must be in the possession of the user at the time of application.

See "GENERAL INFORMATION", "APPLICATION EQUIPMENT AND INSTRUCTIONS", "MIXING INSTRUCTIONS", sections of the label booklet for Sempra CA® herbicide for essential product performance information.

### Environmental Hazards

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where

soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This pesticide is highly toxic to non-target plants. Do not apply to non-target areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of Federal Laws.

### RECOMMENDATIONS

Growth Stage: Sempra CA herbicide may be applied as a directed spray to established plantings of tree nut crops. Established tree nut crops are defined as those

that have been transplanted into their final growing location for a period of at least 12 months and where the soil has firmly settled around the roots from packing and rainfall or irrigation.

Sempre CA herbicide may be applied at 2/3 to 1 1/3 ounces by weight per acre in combination with Roundup® Family Brand herbicides for control of emerged annual grasses, broadleaf weeds and nutsedge.

Extreme care must be exercised to avoid contact of spray containing Sempra CA herbicide with trunk, stems, roots, or foliage of tree nut crops or severe damage or death may result. Recommended rates are based on broadcast treatment. For band applications, reduce the broadcast rate of Sempra CA herbicide in proportion to the area actually sprayed. For all applications, adjust the rate of Sempra CA herbicide to account for high volume output nozzles, such as off-center nozzles, and overlaps in the spray pattern. Use of controlled droplet application, spot application, irrigation, or chemigation equipment for application of this product is not recommended due to variations in the actual application rate. Excessive application rates can result in severe tree injury or death.

Apply 2/3 to 1 1/3 ounces by weight (0.032 to 0.063 pound active ingredient) of Sempra CA herbicide per acre. Use a maximum of 1 ounce by weight (0.046 pound active ingredient) Sempra CA herbicide per acre on coarse textured soils classified as sand, loamy sand, and sandy loam with less than 18% clay and more than 65% sand, or on soils with less than 1% organic matter. Do not apply to gravelly soils. For the best results apply Sempra CA herbicide in the spring when nutsedge is not drought stressed and maximize the interval between application and subsequent irrigation.

Mechanical cultivation or mowing may be required to control weed species not on the Sempra CA herbicide label. If so, a sequential treatment may be required to control weeds in areas of disturbed soil. Sempra CA herbicide may be applied up to 2 applications with a total of all applications not to exceed 2 2/3 ounces of product by weight (0.125 pound active ingredient) per acre per use season. On coarse textured soils classified as sand, loamy sand, and sandy loam with less than 18% clay and more than 65% sand, or on soils with less than 1% organic matter, Sempra CA herbicide may be applied up to 2 applications with a total of all applications not to exceed 2 ounces of product by weight (0.093 pound active ingredient) per acre per use season.

**Do not apply Sempra CA herbicide within 1 day of harvest.**

If Sempra CA herbicide is applied to trees that have been weakened by or recovering from stress caused by, but not limited to, excessive fertilizer or soil salts, disease, nematodes, frost, wind injury, drought, flooding, previously applied pesticides, insects, winter injury, soil pan of any type, nutrient deficiency, or mechanical damage, severe injury or death may occur. Application of Sempra CA herbicide to weakened or stressed trees as described, especially in soils with less than 1% organic matter, significantly increases the probability of severe injury or death. All such risks shall be assumed by the user.

