



Reg # 264-482

PM-21

1/22/12

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAR 23 1994

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OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

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BOX 12014  
RESEARCH TRIANGLE PARK, NC 27709

Subject: Label Amendment Submission of 08/09/93 in Response to PR Notice 93-7  
EPA Reg. No. 264-482  
ROVRAL 4 FLOWABLE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

# ROVRAL® 4 Flowable Fungicide

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## ACTIVE INGREDIENT:

Iprodione: 3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide\* ..... 41.6%

INERT INGREDIENTS: ..... 58.4%

\*Equivalent to 4 Lbs. Iprodione per gallon.

EPA Reg. No. 264-482

EPA Est. No.: 1812-GA-3

## KEEP OUT OF REACH OF CHILDREN CAUTION

For **PRODUCT USE** Information Call 1-800-334-9745

For **MEDICAL** And **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577

## STATEMENT OF PRACTICAL TREATMENT

IN CASE OF CONTACT: Wash skin with soap and water.

IF IN EYES: Flush with water for 15 minutes and get medical attention.

## PRECAUTIONARY STATEMENTS

### CAUTION

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing vapor or spray mist, or contact with skin, eyes, or clothing. Get medical attention if irritation persists.

Applicators and other handlers must wear long-sleeved shirt and long pants, chemical-resistant gloves such as barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), polyvinyl chloride [PVC] (≥ 14 mils), or viton (≥ 14 mils), shoes plus socks, and protective eyewear.

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

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.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, 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. Drift or run-off from treated areas are hazardous to aquatic invertebrates in neighboring areas.

## DIRECTIONS FOR USE

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

Read entire label before using this product.

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.

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

MAR 23 1991

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

264-482

## 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 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 such as barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), polyvinyl chloride (PVC) (≥ 14 mils), or viton (≥ 14 mils), shoes plus socks, and protective eyewear.

## STORAGE AND DISPOSAL

### STORAGE

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

### PESTICIDE DISPOSAL

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

### CONTAINER DISPOSAL

Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## GENERAL CAUTIONS AND RESTRICTIONS

### CROP ROTATION RESTRICTIONS FOR BEANS, BROCCOLI, CARROTS, CHINESE MUSTARD, DRY BULB ONIONS, GARLIC, LETTUCE, POTATOES AND PEANUTS.

The following crops may be rotated after harvest: Garlic, Dry Bulb Onions, Broccoli, Lettuce, Peanuts, Carrots, Beans, and Potatoes.

The following crops may be rotated 1 month following the last Iprodione application: Root crops, Tomatoes, and Cotton.

### GRAZING RESTRICTIONS FOR STONE FRUIT, ALMONDS AND GRAPES.

Do not graze animals in treated orchards. Do not feed cover crops grown in treated orchards to livestock.

## FUNGICIDE RESISTANCE STATEMENT

ROVRAL® 4 Flowable Fungicide is a dicarboximide fungicide. Resistance developed to other dicarboximide, such as Ronilan® may result in resistance to ROVRAL®. Therefore, DO NOT EXTEND THE TOTAL NUMBER OF APPLICATIONS PER CROP ON THIS LABEL WITH Ronilan®.

## HOW TO USE ROVRAL® 4 FLOWABLE FUNGICIDE

Partially fill the spray tank with clean water. Measure the required amount of ROVRAL® 4 Flowable Fungicide and pre-mix with a small volume of water, add this to the tank. Agitate to ensure thorough mixing while filling tank with remaining water. Maintain agitation during application and apply with properly calibrated application equipment. Do not allow spray mixture to stand overnight or for prolonged periods, as some chemical breakdown may occur, particularly in water with a high pH. The spray solution should be buffered to a PH of 5.0 - 7.0. A high quality, nonionic spreader can be used as a spray tank additive for every application with the exception of in-furrow sprays. ROVRAL® should be added to the tank prior to the addition of any adjuvant. Consult the adjuvant label or manufacturer for crop tolerance and safety information when used with ROVRAL®.

## ROVRAL® 4 FLOWABLE FUNGICIDE IS REGISTERED FOR USE ON THE FOLLOWING:

### Field and Row Crops

Peanuts  
Rice (not registered for use in California)

### Fruit Trees and Nuts

Almonds  
Stone Fruits  
Apricots  
Cherries  
Nectarines  
Peaches  
Plums  
Prunes

Ginseng

### Small Fruit

Caneberries  
Grapes  
Strawberries

### Vegetables

Beans (Snap, Dry, and Lima)  
Broccoli  
Carrots  
Chinese Mustard (Florida Only)  
Dry Bulb Onions  
Garlic  
Lettuce (Head & Leaf types)  
Potatoes

## PEANUTS

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply using a tractor mounted spray boom equipped with hollow cone or low pressure nozzles (e.g. 8008LP, 8010LP or TK7.5 that produce large droplets). Nozzles should be adjusted to provide complete coverage of the row.</p> <p>Vine spreaders may be used in combination with flat fan nozzles for banding. The two pint per acre rate needs to be used in the band.</p> <p>Applications may also be made by chemigation.</p>	<b>Sclerotinia Blight</b> ( <i>Sclerotinia minor</i> )	2.0	40 Minimum	<p>Make the initial application when conditions first become favorable for disease development. Up to two subsequent applications should be made at 14 to 21 day intervals.</p> <p>For best results apply using a preventative program.</p>	<p>Do not apply within 10 days of harvest. (PHI = 10 days).</p> <p>A maximum of 3 applications can be made per season.</p> <p>Do not apply by air.</p> <p>Not currently registered in California.</p>

## RICE

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply as a broadcast spray using aerial equipment.</p>	<p><b>Sheath blight</b> (<i>Rhizoctonia solani</i>)</p> <p><b>Brown Spot</b> (<i>Helminthosporium oryzae</i>)</p> <p><b>Sheath Spot</b> (<i>Rhizoctonia oryzae</i>)</p> <p><b>*Narrow Brown Leaf spot</b> (<i>Cercospora oryzae</i>)</p>	1.0	10 Minimum	<p>The first foliar application should be made between joint movement and booting. If favorable disease conditions continue a second application can be applied 2 weeks after the first application, but no later than 75% heading.</p>	<p>Maximum of 2 applications can be made per season.</p> <p>Not currently registered in California.</p> <p>* ROVRAL® will suppress or give partial control of this disease.</p>

Do not apply in areas where catfish and crayfish are commercially cultivated.

**ENDANGERED SPECIES RESTRICTIONS IN THE STATE OF ARKANSAS**

The use of Iprodione on rice is restricted to protect the endangered fat pocketbook pearly mussel (*Potamilus capax*) and its habitat. Use is prohibited in the following areas of Arkansas.

**Mississippi County:** Within the basin that drains directly into the Right Hand Chute of Little River, south of Big Lake National Wildlife Refuge.

**Poinsett County:** Between Crowleys's Ridge and the levee east of the Right Hand Chute of Little River and the St. Francis Floodway. Use is also prohibited west of Rt. 140 and north of Rt. 63 at the SIPHON near Marked Tree. Except that the prohibited area does not include the area bounded by Arkansas Highway 373 on the west, Highway 63 on the east and Highway 14 on the south.

**Cross, St. Francis, and Lee Counties:** Between Crowley's Ridge and the levee east of the Right Hand Chute of Little River and the St. Francis Floodway as far south as the confluence of L'Anquille River (Lee County).

# FRUIT TREE AND NUTS

## ALMONDS

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	PINTS PER 100 GAL.		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage of bloom, foliage, and/or fruit (20 to 400 gallons per acre by ground equipment and in a minimum of 15 gals. per acre by air). *</p> <p>The use of aerial application is not recommended after Petal Fall.</p>	<p><b>Brown Rot Blossom Blight</b> (<i>Monilinia laxa</i>)</p> <p><b>Shothole</b> (<i>Stigmata carpophila</i>)</p>	1.0	0.25	<p><b>Brown Rot, Blossom Blight and Shothole:</b> Apply first at pink bud and, if conditions favorable for disease development persist or reoccur up to 3 subsequent applications can be made at:</p> <ol style="list-style-type: none"> <li>1) full bloom</li> <li>2) petal fall</li> <li>3) up to 5 weeks after petal fall.</li> </ol>	Do not make more than 4 applications per season.

\*The rate of ROVRAL® is based on a standard of 400 gallons per acre dilute spray for mature trees. If less than 400 gallons of spray solution per acre is applied to mature trees use the rate per acre listed in the table above.

## STONE FRUITS

Apricots, Cherries, Nectarines, Peaches, Plums, and Prunes

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	PINTS PER 100 GAL.		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage of bloom, foliage, and/or fruit (20 to 400 gallons per acre by ground equipment and in a minimum of 15 gals. per acre by air). *</p> <p>The use of aerial application is not recommended after Petal Fall.</p>	<p><b>Brown Rot Blossom Blight</b> (<i>Monilinia spp.</i>)</p>	1.0 - 2.0	0.25 - 0.5	<p>Apply between pink bud and early bloom (approximately 5% bloom). If conditions are favorable for disease development, apply again at full bloom and at petal fall.</p>	Do not make more than 5 applications of this product per season.
	<p><b>Fruit Brown Rot</b> (<i>Monilinia spp.</i>)</p> <p><b>Shot Hole*</b> (<i>Stigmata carpophila</i>)</p> <p><b>Scab*</b> (<i>Ventura carpophila</i>)</p>	1.0 - 2.0	0.25 - 0.5	<p>An application should be made whenever temperatures and moisture conditions favor disease infection in the 5-week period prior to harvest. If these conditions persist or reoccur, additional applications should be made. Applications can be made on a 7-14 day interval following the first preharvest application if needed.</p>	<p>Preharvest applications may be made up to and including the day of harvest (PHI=0 day)</p> <p>Under severe disease conditions, the higher rate and shorter spray interval is recommended.</p>
	<p><b>Cherry Leaf Spot</b> (<i>Coccomyces hiemalis</i>)</p>	1.0 - 2.0	0.25 - 0.5	<p>Follow the Brown Rot Blossom Blight and Fruit Rot spray program. At least one foliar spray should be made between petal fall and shuck split, with an additional foliar spray applied 14 days after harvest.</p>	*Not currently registered in California.

\*The rate of ROVRAL® is based on a standard of 400 gallons per acre dilute spray for mature trees. If less than 400 gallons of spray solution per acre is applied to mature trees use the rate per acre listed in the table above.

## GINSENG

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage using ground equipment.</p> <p>ROVRAL® should be used as part of a complete spray program.</p> <p><b>Alternating Program:</b></p> <p>Use as an alternating treatment on a 14 day interval with another fungicide registered for control of Alternaria Blight.</p>	<b>Alternaria Blight</b> ( <i>Alternaria panax</i> )	1.5 - 2.0	10 Minimum	<p>Make the first application when conditions become favorable for disease development. Continue applications on a 14 day interval if using the alternating spray program or on a 7 day interval if using the tank mix program.</p>	<p>Do not apply within 36 days of harvest (PHI = 36 days).</p> <p>Do not apply more than 10 pints of product per season.</p>
<p><b>Tank Mix Program:</b></p> <p>Apply at the reduced rate on a 7 day interval when combined in a tank mix with another fungicide registered for control of Alternaria Blight.</p>		1.0 - 1.5			

## SMALL FRUIT

### CANE BERRIES

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply as a foliar spray with ground equipment in sufficient water to obtain thorough coverage at bloom and/or fruit.</p>	<b>Botrytis Fruit Rot</b> ( <i>Botrytis cinerea</i> )	1.0 - 2.0	100 Minimum	<p>Make the first application at early bloom (5 to 10% bloom) and again at full bloom. Two additional applications can be applied at 14 day intervals or as required.</p>	<p>The final application can be made up to and including the day of harvest. (PHI = 0 day).</p> <p>Do not make more than 4 applications per season.</p> <p>Under severe disease conditions, the higher rate is recommended.</p>

# GRAPES

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HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage. The application equipment should be calibrated and adjusted to direct the spray at the bunches to insure thorough bunch coverage.</p> <p>Thorough Coverage of the Bunches is Essential.</p>	<p><b>Bunch Rot</b> (<i>Botrytis spp.</i>)</p>	1.0-2.0	<p>50 Minimum</p>	<p>Apply in accordance with the directions provided in the table below.</p> <p><b>Spray Schedule</b></p> <p>1) Early mid-bloom</p>	<p>The final application may be made up to and including the day of harvest.(PHI=0 day).</p> <p>Under severe disease conditions, the higher rate is recommended.</p> <p>This product must be used in conjunction with good cultural practices designed to minimize conditions conducive for Bunch Rot development.</p>
		1.5-2.0		2) Prior to bunch closing	
		1.5-2.0		3) Beginning of fruit ripening (veraison)	
		1.5-2.0		4) Final application prior to harvest as needed.	

# STRAWBERRIES

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	PINTS PER 100 Gallons		
<p><b>DIP</b></p> <p>Dip the transplants in the solution for 5 minutes and plant immediately.</p>	<p><b>Botrytis Crown Rot</b> (<i>Botrytis spp.</i>)</p>	--	2.0	<p>Apply as a preplant dip immediately prior to planting.</p>	<p>For pre plant and dip use see Precautionary Statement.</p> <p>ROVRAL® may be applied up to and including the day of harvest. (PHI = 0 days).</p> <p>Do not make more than 4 applications per season.</p> <p>Under severe disease conditions, the higher rate and shorter spray interval is recommended.</p> <p>*ROVRAL® will suppress or give partial control of this disease.</p> <p>Aerial application is not currently registered in California.</p>
<p><b>FOLIAR SPRAY</b></p> <p>Apply as a foliar spray in not less than 100 gallons of water per acre.</p> <p>Applications can be made by aerial methods at a minimum of 10 gallons per acre.</p> <p>Thorough coverage is essential for disease control.</p> <p>The highest rate and/or shortest spray interval should be used under severe disease conditions.</p>	<p><b>Gray Mold</b> (<i>Botrytis cinerea</i>)</p> <p><b>Stem End Rot</b> (<i>Gnomonia comari</i>)</p> <p><b>Phomopsis Soft Rot</b> (<i>Phomopsis obscurans</i>)</p> <p><b>Purple Leaf Spot</b> (<i>Mycosphaerella spp.</i>)</p> <p><b>Anthracnose*</b> (<i>Colletotrichum spp.</i>)</p>	1.5 - 2.0	--	<p>Make the first application no later than 10% bloom. Additional sprays may be made on a 10-14 day interval.</p>	

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**VEGETABLES**

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**BEANS (Snap, Dry, and Lima)**

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply using ground equipment with a spray pressure of 50-100 PSI using a three nozzle/row boom arranged with one directly over the row and a drop on each side of the row.</p> <p>Application can also be made by chemigation.</p> <p>Though coverage is essential for disease control.</p>	<p><b>Gray Mold</b> (<i>Botrytis spp.</i>)</p> <p><b>White Mold</b> (<i>Sclerotinia spp.</i>)</p>	1.5 to 2.0	40 Minimum	<p>Apply as a foliar spray at first bloom to when 10% of the plants have one open bloom and again 5-7 days later or up to peak bloom, if conditions are favorable for disease development.</p>	<p>Do not allow foraging for 14 days after last application.</p> <p>Do not feed snap bean hay to livestock.</p> <p>Do not feed dry bean hay to livestock until 45 days after last application.</p> <p>Do not feed succulent bean hay to livestock.</p> <p>Two applications maximum per season, with the last application made no later than full bloom.</p> <p>Under severe disease conditions the higher rate and shorter spray interval should be used.</p> <p>Not currently registered in California.</p>

**BROCCOLI**

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Application should be made with a tractor-mounted boom sprayer with 2 flat fan nozzles per row (one on either side) directed at the base of the plant and the adjacent soil surface. Position nozzles to ensure thorough coverage of the stem.</p> <p>Application may be made by chemigation.</p>	<p><b>Black Leg</b> (<i>Phoma lingam</i>)</p>	2.0	40 Minimum	<p>Apply immediately after thinning (2 to 4 leaf state) as a directed spray to the base of the plant and the adjacent soil surface. If disease conditions persist or reoccur, a second application may be made up to the day of harvest.</p>	<p>This product can be applied up to the day of harvest (PHI = 0 days). Do not drench.</p> <p>Not currently registered in California.</p>



# CARROTS

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HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage.</p> <p>May be applied by ground, chemigation, or aerial equipment.</p>	<p><b>Alternaria Blight</b> (<i>Alternaria dauci</i>)</p> <p><b>Black Crown Rot*</b> (<i>Alternaria radicina</i>)</p>	1.0 - 2.0	10 Minimum	<p>Make the first application as conditions become favorable for disease development. Continue applications on a 7 to 14 day interval as long as conditions favor disease development.</p>	<p>Do not make more than 4 applications of this product per season. This product can be applied up to the day of harvest (PHI = 0 days). The higher rate and/or shorter spray interval should be used under severe disease conditions.</p> <p>Aerial and chemigation methods of application are not currently registered in California.</p> <p>* Not currently registered in California.</p>

## CHINESE MUSTARD (For Use In Florida Only)

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage.</p>	<p><b>Alternaria Leafspot</b> (<i>Alternaria spp.</i>)</p>	1.0	50 Minimum	<p>Make the first application as conditions become favorable for disease development. Continue applications on a 10-14 day interval as long as conditions favor disease development.</p>	<p>Do not make more than 4 applications of this product per season. Do not apply within 10 days of harvest. (PHI = 10 days).</p>

## DRY BULB ONIONS

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply using ground, air, or chemigation equipment.</p> <p>Use a boom sprayer with either a single or multiple nozzles per row adjusted to provide complete coverage of each row.</p>	<p><b>Botrytis Leaf Blight</b> (<i>Botrytis squamosa</i>)</p> <p><b>Purple Blotch</b> (<i>Alternaria porri</i>)</p>	1.5	<p>10 Minimum (aerial)</p> <p>50 Minimum (ground)</p>	<p>Apply as a foliar spray as soon as conditions become favorable for disease development. Continue application on a 14 day interval as long as conditions favor disease development. Do not apply more than 5 applications per season.</p>	<p>Do Not apply within 7 days of harvest. (PHI = 7 days).</p> <p>Under severe disease conditions use the higher rate.</p>
<p><b>Tank Mix</b></p> <p>Apply at the reduced rate when combined in a tank mix with another fungicide registered for the control of Botrytis Leaf Blight, Botrytis Neck Rot or Purple Blotch as described for ground application.</p>	<p><b>Botrytis Neck Rot</b> (<i>Botrytis allii</i>)</p>	<p>Tank Mix</p> <p>1.0 - 1.5</p>		<p><b>Tank Mix</b></p> <p>Apply as a foliar spray as soon as conditions become favorable for disease. Continue applications on a 7 day interval as long as conditions favor disease development.</p>	<p>Aerial and chemigation methods of application are not currently registered in California.</p>

# GARLIC

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HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
Apply as an in-furrow spray in sufficient water to obtain thorough coverage of the open furrow and covering soil.	<b>White Rot</b> ( <i>Sclerotium cepivorum</i> )	4.0*	20 Minimum	Apply in the furrow at planting.	*This rate is based on pints product/treated acre and represents the rate for a 38-40 inch bed spacing.  Not currently registered in California.

## LETTUCE (head & leaf types)

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage. Application should be made with a tractor mounted boom sprayer equipped with three nozzles per seed line (one centered over the row and one on each side of the row) with two nozzles directed to ensure thorough coverage of the lower portion of the plants and the surrounding soil surface.</p> <p>* When applying in a band do not reduce the acre rate.</p> <p>Applications may also be made by chemigation.</p>	<p><b>Lettuce Drop</b> (<i>Sclerotinia spp.</i>)</p> <p><b>Bottom Rot</b> (<i>Rhizoctonia solani</i>)</p>	1.5 - 2.0*	40 Minimum	Apply from the 3 leaf stage to just after thinning and again 10 days later. If conditions still favor disease development, a third application should be made 10 days after the second spray.	<p>Under severe disease conditions the higher rates should be used.</p> <p>Do Not make more than three applications to each crop.</p> <p>Do Not apply within 14 days of harvest (PHI=14 days).</p> <p>Do Not cultivate after application. If necessary make a application during or immediately after cultivation. Do Not drench.</p>

# POTATOES

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HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		PINTS PER ACRE	GALS. WATER PER ACRE		
<b>Early Blight</b> Apply with a boom sprayer with a single or multiple nozzles adjusted to provide thorough coverage of the foliage particularly the older leaves.  Application can also be made by chemigation or by air.  Thorough coverage of the foliage is essential for control.	<b>Early Blight</b> <i>(Alternaria solani)</i>	1.0 - 2.0	10 Minimum	For Early Blight, begin applications when conditions first become favorable for disease development. Up to 3 subsequent applications can be applied at 10-14 day intervals or as required.	A maximum of 4 total applications can be made per season.  Do not apply within 14 days of harvest. (PHI = 14 days).
<b>White Mold</b> Apply with a boom sprayer with a single or multiple nozzles adjusted to provide thorough coverage of the lower stems and branches and the soil surface surrounding the plants or by chemigation.  Do not apply by air except in California.	<b>White Mold</b> <i>(Sclerotinia spp.)</i>	2.0	10 Minimum	For White Mold, apply just prior to row closing, or at early first sign of disease, and repeat on a 14-28 day interval, if favorable conditions for disease development continues.	Under severe disease conditions the higher rate should be used for Early Blight. When applying through irrigation deliver between 0.1 to 0.3 inches of water per acre. Do not irrigate for 24 hours after application. Do not apply by air for White Mold control.

## DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS

Not for use in California except on potatoes.

Apply this product only through sprinkler irrigation systems including microjet, solid set, wheel lines and center pivot. Do not apply this product through any other type of irrigation system.

**SPRAY PREPARATION:** Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

**APPLICATION INSTRUCTIONS:** First prepare a suspension of ROVRAL® 4 Flowable Fungicide in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of ROVRAL® 4 Flowable Fungicide, and then the remaining volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of ROVRAL® 4 Flowable Fungicide per 1 to 4 gallons of water are recommended). The spray solution should be buffered to a PH of 5.0-7.0. Then set sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of ROVRAL® 4 Flowable Fungicide into the irrigation water line so as to deliver the desired rate per acre. The suspension of ROVRAL® 4 Flowable Fungicide should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you should have any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**NOTE:** When treatment with ROVRAL® 4 Flowable Fungicide has been completed, further field irrigation over the treated area should be avoided for 24 hours to prevent washing the chemical off the crop.

## GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e. g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from nonuniform distribution of treated water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

## **LIMITED WARRANTY AND DISCLAIMER**

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use when it is used in accordance with such directions; and (c) that the directions, warning and other statements on this label are based upon responsible experts' evaluation of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants, and of residues on food crops and upon reports of field experience. Tests have not been made on all varieties or in all states or under all conditions. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE, ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

### **NOTICE TO BUYER**

Purchase of this material does not confer any rights under patents governing this product or the use thereof in countries outside of the United States.

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