

264-532

09/12/2001

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ACCEPTED
SEP 12 2001
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 264-532 50.0%

ROVRAL[®] 50 SP Fungicide

ACTIVE INGREDIENT:

Iprodione: 3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide

INERT INGREDIENTS:

50.0%

EPA Reg. No. 264-532

EPA Est. No.:

KEEP OUT OF REACH OF CHILDREN CAUTION

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

For **PRODUCT USE** Information Call 1-888-AVENTIS (1-888-283-6847)

FIRST AID

IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577. Have the product container or label with you when calling a poison control center or doctor or going for treatment.	

PRECAUTIONARY STATEMENTS

CAUTION**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Harmful if absorbed through skin or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

PERSONAL PROTECTIVE EQUIPMENT

Mixers, loaders, others exposed to the concentrate, cleaners/repairers of equipment, and applicators applying as a dip treatment must wear coveralls over long-sleeve shirt and long pants, waterproof gloves, chemical-resistant footwear plus socks, chemical-resistant apron, and a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

Applicators using handheld equipment must wear coveralls over long-sleeve shirt and long pants, waterproof gloves, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposures, and a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

Applicators using aircraft or mechanical ground equipment (groundboom, airblast, etc.), and flaggers for aerial applications must wear long-sleeve shirt and long pants, and shoes plus socks.

Applicators and all other handlers not specified above must wear long-sleeve shirt and long pants, waterproof gloves, and shoes plus socks.

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.

Discard clothing or other materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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.

Water-soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, waterproof gloves, and a chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This chemical can contaminate surface water through aerial and ground spray applications. Under some conditions, it may also have a high potential for runoff into surface water after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

This pesticide is toxic to invertebrates. For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. 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 entire label before using this product.**

Do not apply this product in a way that will contact workers or other persons, either directly or indirectly 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 of 48 hours for grapes. The restricted entry interval for all other WPS uses is 24 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, waterproof gloves and shoes plus socks.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Store in a cool, dry place above 32° F. Do not store this product under wet conditions. Handle outer bag carefully when stored at temperatures less than 50° F to avoid breakage of inner soluble bag.

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

Do not reuse outer bag. Dispose of outer bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, burning. If burned, stay out of the smoke.

GENERAL CAUTIONS AND RESTRICTIONS

DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS

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® 50 SP 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® 50 SP Fungicide, and then the remaining volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of ROVRAL® 50 SP 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 0.4 inch of water per acre. Start sprinkler and uniformly inject the suspension of ROVRAL® 50 SP Fungicide into the irrigation water line so as to deliver the desired rate per acre. The suspension of ROVRAL® 50 SP 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[®] 50 SP 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.

AERIAL SPRAY DRIFT

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 habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

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 formulation.

1. The distance of the outer most nozzles on the boom must not exceed $\frac{1}{4}$ the length of the wingspan or rotor.
2. 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. The applicator should be familiar with and take into account the information covered in the [Aerial Drift Reduction Advisory Information](#).

INFORMATION ON DROPLET SIZE: (This section is advisory in nature and does not supersede the mandatory label requirements)

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 will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions below).

CONTROLLING DROPLET SIZE: (This section is advisory in nature and does not supersede the mandatory label requirements)

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. 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 that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from 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 the largest droplets and the lowest drift.

BOOM LENGTH: (This section is advisory in nature and does not supersede the mandatory label requirements)

For some use patterns, reducing the effective boom length to less than $\frac{1}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT: (This section is advisory in nature and does not supersede the mandatory label requirements)

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT: (This section is advisory in nature and does not supersede the mandatory label requirements)

When applications are made with a crosswind, 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 (higher wind, smaller drops, etc.)

WIND: (This section is advisory in nature and does not supersede the mandatory label requirements)

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 below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY: (This section is advisory in nature and does not supersede the mandatory label requirements)

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: (This section is advisory in nature and does not supersede the mandatory label requirements)

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 winds 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 generator. 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.

FUNGICIDE RESISTANCE STATEMENT

ROVRAL® 50 SP Fungicide is a dicarboximide fungicide. Resistance developed to other dicarboximide, such as Ronilan® may result in resistance to ROVRAL® 50 SP. Therefore, DO NOT EXTEND THE TOTAL NUMBER OF APPLICATIONS PER CROP ON THIS LABEL WITH Ronilan®. DO NOT TANK MIX THIS PRODUCT WITH Ronilan®.

HOW TO USE ROVRAL® 50 SP FUNGICIDE

Partially fill the spray tank with clean water and start agitation. Open the plastic outer bag and drop the water soluble bag or bags into the tank. Agitate to ensure thorough mixing for a minimum of two minutes or until bags and product are completely dispersed then fill the tank with water. Maintain agitation during application and apply with properly calibrated application equipment. Do not allow the 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® 50 SP 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® 50 SP. Mixing with very acidic products may result in precipitation of ROVRAL®.

GENERAL HANDLING INSTRUCTIONS: Each ROVRAL® 50 SP water soluble packet comes sealed in a clear plastic outer sleeve. Do not break the seal until the time of use. To use, open the end of the outer sleeve by tearing along the printed solid black line. Do not use a knife or other sharp object to break the seal. Once the outer protective sleeve is open, the water soluble packet inside can be dropped into the spray tank at the appropriate time without having to touch it.

HANDLING PRECAUTIONS

- Do not allow the empty outer sleeve or the tear-strip to fall into the spray tank as they are not water soluble and may clog the sprayer.
- Do not handle the inner water soluble packet with wet gloves as it will begin to dissolve on contact with even a small amount of water.
- The PVA packet should not be opened and partial packet not used for a tankmix.
- The entire contents of the water soluble packet must be used.

ROVRAL® 50 SP FUNGICIDE IS REGISTERED FOR USE ON THE FOLLOWING:

Field and Row Crops

Peanuts
Rice

Fruit Trees and Nuts

Almonds
Stone Fruits
Apricots
Cherries
Nectarines
Peaches
Plums
Prunes

Ginseng

Small Fruit

Berries
Grapes
Strawberries

Vegetables

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

If you are unsure about disease conditions, contact your local extension agent.

Use of this product at residential sites is prohibited.

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

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

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.

If applying this product adjacent to a water body such as a lake, reservoir, river, permanent stream, marsh or natural pond, estuary, or commercial fish pond, there must be at least a 25-foot vegetative buffer strip between the water body and the point of application.

Do not apply this product when the wind direction is toward aquatic areas as indicated above.

FOR RICE USE ONLY

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 Crowley'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'Anguille River (Lee County).

FIELD AND ROW CROPS

PEANUTS*

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets 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 pounds per acre rate needs to be used in the band.</p> <p>Applications may also be made by chemigation.</p> <p>Minimum of 40 gals. of water per acre by ground application.</p>	<p>Sclerotinia Blight (<i>Sclerotinia minor</i>)</p>	2.0	2.0	<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>A maximum of 3 applications or 6 lbs of product can be applied per season with the last spray being at least 2.0 lbs/Acre.</p> <p>Do not apply within 10 days of harvest. (PHI = 10 days).</p> <p>Do not apply by air.</p> <p>Do not feed peanut hay to livestock.</p> <p>* Not currently registered in California.</p>

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RICE*

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>Apply as a broadcast spray using aerial equipment.</p> <p>Minimum of 10 gallons of water per acre.</p> <p>** ROVRAL® 50 SP will suppress or give partial control of this disease.</p>	<p>Sheath blight (<i>Rhizoctonia solani</i>)</p> <p>Brown Spot (<i>Bipolaris oryzae</i>)</p> <p>Sheath Spot (<i>Rhizoctonia oryzae</i>)</p> <p>**Narrow Brown Leaf spot (<i>Cercospora oryzae</i>)</p>	1.0	1.0	<p>The first foliar application should be made between joint movement and booting. If favorable disease conditions continue a second application can be applied 14 days 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>

FRUIT TREE AND NUTS

ALMONDS

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>ROVRAL® 50 SP should be used as an integral part of a complete spray program.</p> <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 after petal fall may result in reduced control due to lack of canopy penetration and coverage.</p>	<p>Brown Rot Blossom Blight (<i>Monilinia laxa</i>)</p> <p>Shot Hole (<i>Stigmina carpophila</i>)</p>	1.0	1.0	<p>The table below is only recommended as a general guideline. Applications should be based on local disease and growing conditions. Contact your local extension agent for regional recommendations.</p> <p>Spray Schedule Table</p> <p>Apply first at pink bud and, if conditions favorable for disease development persist or recur up to 3 subsequent applications can be made at:</p> <ol style="list-style-type: none"> 1) full bloom 2) petal fall 3) up to 5 weeks after petal fall. 	<p>Do not make more than 4 applications per season.</p>

STONE FRUIT

APRICOTS, CHERRIES, NECTARINES, PEACHES, PLUMS AND PRUNES

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>ROVRAL® 50 SP should be used as an integral part of a complete disease control program.</p> <p>Apply as a foliar spray in sufficient water to obtain thorough coverage of blossoms and foliage (20 to 400 gallons per acre by ground equipment and in a minimum of 15 gals. per acre by air).</p> <p>Under severe disease conditions, the higher rate and shorter spray interval is recommended.</p>	<p>Brown Rot Blossom Blight (<i>Monilinia spp.</i>)</p> <p>Shot Hole (<i>Stigmata carpophila</i>)</p> <p>Scab (<i>Ventura carpophila</i>)</p>	1.0 - 2.0	1.0 - 2.0	<p>Apply ROVRAL® 50 SP when bud tissue is susceptible to disease. (i.e., Pink, White or Red bud). If conditions favorable for disease development persist or recur apply again at full bloom or at petal fall.</p> <p>The use of this product may be alternated with other registered fungicides as additional applications may be required during the bloom period.</p>	<p>Do not make more than 2 applications of this product per season.</p> <p>This product may not be applied after petal fall.</p>

GINSENG*

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>ROVRAL® 50 SP should be used as part of a complete spray program.</p> <p>Apply as a foliar spray in sufficient water to obtain thorough coverage using ground equipment.</p> <p>Alternating Program:</p> <p>Use as an alternating treatment on a 14 day interval with another fungicide registered for control of Alternaria Blight.</p> <p>Minimum 10 gallons of water per acre.</p>	<p>Alternaria Blight (<i>Alternaria panax</i>)</p>	1.5 - 2.0	2.0	<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</p>	<p>Do not make more than 5 applications per season.</p> <p>Do not apply within 36 days of harvest (PHI = 36 days).</p>
<p>Tank Mix Program:</p> <p>Apply as a tank mix with another fungicide registered for control of Alternaria Blight.</p> <p>Minimum 10 gallons of water per acre.</p>	<p>Alternaria Blight (<i>Alternaria panax</i>)</p>	1.0 - 1.5	1.0	<p>Make the first application when conditions become favorable for disease development. Continue on a 7 to 10 day interval.</p>	<p>Do not apply more than 10 pounds of product per season.</p> <p>Do not apply within 36 days of harvest (PHI = 36 days).</p>

* Not currently registered in California.

SMALL FRUIT

BERRIES

Caneberry: Blackberry; loganberry; red and black raspberry; cultivars and/or hybrids of these
 Bushberry: Blueberry, highbush and lowbush; currant; elderberry; gooseberry; huckleberry

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>Apply as a foliar spray with ground equipment in sufficient water to obtain thorough coverage at bloom and/or fruit.</p> <p>Under severe disease conditions, the higher rate is recommended.</p> <p>Minimum 100 gallons of water per acre.</p>	<p>Botrytis Fruit Rot (<i>Botrytis cinerea</i>)</p>	1.0 - 2.0	1.0 - 2.0	<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>Do not make more than 4 applications per season.</p> <p>The final application can be made up to and including the day of harvest. (PHI = 0 day).</p>

GRAPES

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS	
		POUNDS PER ACRE	ROVRAL® 50 SP Packets 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 coverage.</p> <p>Application may be made by chemigation except in the state of New York.</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> <p>Thorough coverage of the bunches is essential.</p> <p>Minimum of 50 gallons of water per acre.</p>	<p>Bunch Rot (<i>Botrytis cinerea</i>)</p>	<p>Wine and Sherry Grapes:</p>	<p>1.0-2.0 1.5-2.0 1.5-2.0 1.5-2.0</p>	<p>1.0-2.0 2.0 2.0 2.0</p>	<p>The table below is only recommended as a general guideline. Applications should be based on local disease and growing conditions. Contact your local extension agent for regional recommendations.</p> <p>Spray Schedule Table</p> <ol style="list-style-type: none"> 1) Early to mid-bloom 2) Prior to bunch closing 3) Beginning of fruit ripening (veraison) 4) Final application prior to harvest as needed. 	<p>Do not make more than 4 applications per season.</p> <p>The final application may be made up to 7 days before harvest (PHI=7 days).</p>
		<p>Table and Raisin Grapes:</p>	1.0-2.0	1.0-2.0		

STRAWBERRIES (Preplant Dip)

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER 100 Gal.	ROVRAL® 50 SP Packets per 100 Gal.		
Dip the transplants in the solution for 5 minutes and plant immediately.	Botrytis Crown Rot (<i>Botrytis cinerea</i>)	2.0	2.0	Apply as a preplant dip immediately prior to planting.	Do not make more than 1 application.

STRAWBERRIES (Foliar Spray)

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>Apply as a foliar spray in not less than 100 gallons of water per acre.</p> <p>Aerial applications can be made with a minimum of 10 gallons of water per acre.</p> <p>Thorough coverage is essential for disease control.</p> <p>Under severe disease conditions, the higher rate and shorter spray interval is recommended.</p> <p>*ROVRAL® 50 SP will suppress or give partial control of this disease.</p>	<p>Gray Mold (<i>Botrytis cinerea</i>)</p> <p>Stem End Rot (<i>Gnomonia comari</i>)</p> <p>Phomopsis Soft Rot (<i>Phomopsis obscurans</i>)</p> <p>Purple Leaf Spot (<i>Mycosphaerella spp.</i>)</p> <p>Anthracnose* (<i>Colletotrichum spp.</i>)</p>	1.5 - 2.0	2.0	Apply when conditions are favorable for disease development.	<p>Do not make more than 1 application per season.</p> <p>Do not apply ROVRAL® 50 SP after first fruiting flower.</p>
<p>Tank Mix Program</p> <p>Apply as a tank mix with another fungicide registered for control of Gray Mold on strawberries.</p> <p>Do not combine with Ronilan.</p> <p>*ROVRAL® 50 SP will suppress or give partial control of this disease.</p>		1.0	1.0	Apply when conditions are favorable for disease development.	<p>Do not make more than 1 application per season.</p> <p>Do not apply ROVRAL® 50 SP after first fruiting flower.</p>

VEGETABLES

BEANS (Snap, Dry, and Lima)

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets 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 air* or chemigation.</p> <p>Under severe disease conditions the higher rate and shorter spray interval should be used.</p> <p>Thorough coverage is essential for disease control.</p> <p>Minimum of 40 gallons of water per acre by ground or 10 gallons per acre by air.</p>	<p>Gray Mold <i>(Botrytis cinerea)</i></p> <p>White Mold <i>(Sclerotinia sclerotiorum)</i></p>	1.5 to 2.0	2.0	<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>Two applications maximum per season, with the last application made no later than full bloom.</p> <p>Do not allow foraging for 14 days after last application.</p> <p>Do not feed snap or succulent bean hay to livestock.</p> <p>Do not feed dry bean hay to livestock until 45 days after last application.</p> <p>Do not use this product on cowpeas.</p> <p>* Aerial application is not currently registered in California.</p>

BROCCOLI

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets 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>Minimum of 40 gallons of water per acre.</p>	<p>Black Leg <i>(Leptosphaeria maculans)</i></p>	2.0	2.0	<p>Apply immediately after thinning (2 to 4 leaf stage) as a directed spray to the base of the plant and the adjacent soil surface. If disease conditions persist or recur, a second application may be made up to the day of harvest.</p>	<p>Do not make more than 2 applications per crop.</p> <p>This product can be applied up to the day of harvest (PHI = 0 days).</p> <p>Do not drench.</p>

CARROTS

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets 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>The higher rate and/or shorter spray interval should be used under severe disease conditions.</p> <p>Minimum of 10 gals. of water per Acre.</p>	<p>Alternaria Blight (<i>Alternaria dauci</i>)</p> <p>Black Crown Rot (<i>Alternaria radicina</i>)</p>	1.0 - 2.0	1.0 - 2.0	<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.</p> <p>This product can be applied up to and including the day of harvest (PHI = 0 days).</p>
<p>Tank Mix Program</p> <p>Apply as a tank mix with another fungicide registered for control of Alternaria on carrots.</p> <p>Minimum of 10 gals. of water per Acre.</p>	<p>Alternaria Blight (<i>Alternaria dauci</i>)</p> <p>Black Crown Rot (<i>Alternaria radicina</i>)</p>	1.0	1.0	<p>Make the first application as conditions become favorable for disease development. Continue applications on a 7 to 10 day interval as long as conditions favor disease development.</p>	<p>Do not make more than 10 applications of this product per season.</p> <p>This product can be applied up to and including the day of harvest (PHI = 0 days).</p>

CHINESE MUSTARD (For Use In Florida Only)

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>Apply as a foliar spray in sufficient water to obtain thorough coverage.</p> <p>Minimum of 50 gallons of water per acre.</p>	<p>Alternaria Leaf Spot (<i>Alternaria spp.</i>)</p>	1.0	1.0	<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.</p> <p>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
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Two ACRES*		
<p>Apply using ground, air, or chemigation equipment.</p> <p>For ground application, use a boom sprayer with either a single or multiple nozzles per row adjusted to provide complete coverage of each row.</p> <p>Minimum of 50 gallons of water per acre by ground or 10 gallons per acre by air.</p>	<p>Botrytis Leaf Blight (<i>Botrytis squamosa</i>)</p> <p>Purple Blotch (<i>Alternaria porri</i>)</p> <p>Botrytis Neck Rot (<i>Botrytis allii</i>)</p>	1.5	3.0*	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 make more than 5 applications per season. Do Not apply within 7 days of harvest. (PHI = 7 days).
<p>Tank Mix</p> <p>Apply as a tank mix with another fungicide registered for the control of Botrytis Leaf Blight, Botrytis Neck Rot or Purple Blotch (as described above for ground application).</p> <p>Minimum of 50 gallons of water per acre by ground or 10 gallons per acre by air.</p>	<p>Botrytis Leaf Blight (<i>Botrytis squamosa</i>)</p> <p>Purple Blotch (<i>Alternaria porri</i>)</p> <p>Botrytis Neck Rot (<i>Botrytis allii</i>)</p>	1.0	2.0*	Apply as a foliar spray as soon as conditions become favorable for disease. Continue applications on a 7 to 10 day interval as long as conditions favor disease development.	Do not make more than 10 applications per season. Do Not apply within 7 days of harvest. (PHI = 7 days).

GARLIC

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>Apply as an in-furrow spray in sufficient water to obtain thorough coverage of the open furrow and covering soil.</p> <p>Minimum of 20 gallons of water per acre.</p>	<p>White Rot (<i>Sclerotium cepivorum</i>)</p>	4.0*	4.0	Apply in the furrow at planting.	Do not make more than 1 application per year.

*This rate is based on pounds product/treated acre and represents the rate for a 38-40 inch row spacing.

LETTUCE (head & leaf types)

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets 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>Under severe disease conditions the higher rates should be used</p> <p>* When applying in a band do not reduce the acre rate.</p> <p>Applications may also be made by air** or by chemigation.***</p> <p>Minimum of 40 gallons of water per acre.</p>	<p>Lettuce Drop (<i>Sclerotinia spp.</i>)</p> <p>Bottom Rot (<i>Rhizoctonia solani</i>)</p>	1.5 - 2.0*	2.0	<p>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>	<p>Do not make more than 3 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.</p> <p>Do not drench.</p> <p>**Aerial application can only be used for the first spray (3-leaf to thinning).</p> <p>*** Chemigation is not currently registered in California.</p>

POTATOES

HOW TO USE	DISEASE	DOSAGE RATE		WHEN TO APPLY	USE RESTRICTIONS
		POUNDS PER ACRE	ROVRAL® 50 SP Packets per Acre		
<p>Apply with a boom sprayer with a single or multiple nozzles adjusted to provide thorough coverage of the foliage particularly the older leaves.</p> <p>Under severe disease conditions the higher rate should be used for Early Blight.</p> <p>Application can also be made by chemigation or by air.</p> <p>When applying by sprinkler irrigation, deliver between 0.1 to 0.4 inches of water per acre.</p> <p>Minimum of 10 gallons of water per acre.</p>	<p>Early Blight (<i>Alternaria solani</i>)</p>	<p>1.0 - 2.0</p>	<p>1.0 - 2.0</p>	<p>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.</p>	<p>A maximum of 4 total applications can be made per season.</p> <p>Do not apply within 14 days of harvest. (PHI = 14 days).</p> <p>Do not irrigate for 24 hours after application.</p>
<p>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.</p> <p>Thorough coverage is essential for control.</p> <p>Minimum of 10 gallons of water per acre.</p>	<p>White Mold (<i>Sclerotinia sclerotiorum</i>)</p>	<p>2.0</p>	<p>2.0</p>	<p>Apply just prior to row closing, or at early first sign of disease, and repeat on a 14-21 day interval, if favorable conditions for disease development continues.</p>	<p>Do not apply by air for White Mold control except in California.</p>

IMPORTANT: READ BEFORE USE

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