# ROVRAL<sup>®</sup> 50 SP Fungicide

**ACTIVE INGREDIENT:** 

INERT INGREDIENTS:

EPA Reg. No. 264-532

EPA Est. No.:

# 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.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, us detergent and hot water. Keep and wash PPE separately from other laundry.

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

## **User Safety Recommendations**

- Wash hands before eating, drimking, drewing gum, using tobacco or using the toilet.
- · Remove clothing immediately if pesticine 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 wash water. 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 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 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 tabel 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 tillat involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socko, and protective eyewear.

SEP 28 1998

Under the Pederal Insectición Pungicide, and Reducticide Ack mended, for the posticide

## STORAGE AND DISPOSAL

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

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

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

#### **GENERAL CAUTIONS AND RESTRICTIONS**

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

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

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

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

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

### FUNGICIDE RESISTANCE STATEMENT

≈OVRAL® 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\*.

ENERAL 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 strike 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 sprey tank at the appropriate time without having to touch it.

#### -ANDLING 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 randle 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 entre contents of the water soluble packet must be used.

## **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 property calibrated application equipment. Do not allow the spray modure to stand overnight or for prolonged periods, as some chemical breakdown may occur, particularly in water with a high pH. The sorray 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 tabel 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®.

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

| Field and Row Crops  | Small Fruit                             |         |
|----------------------|---|---------|
| Peanuts              | Berries                                 |         |
| Riice                | Grapes                                  |         |
| Fruit Trees and Nuts | Strawberries Strawberries               |         |
| Aknonds              | Vegetables                              |         |
| Skone Fruits         | Beans (Snap, Dry, and Lima)             | 1       |
| Apricots             | Broccoli                                | 1 1     |
| Cherries             | Carrots                                 | , . ,   |
| Nectarines           | Chinese Mustard (Florida Only)          | ,       |
| Peaches              | Dry Bulb Onions ` ,,,,,,                |         |
| Plums                | Garlic                                  | ,       |
| Prunes               | Lettuce (Head & Leaf types)             | , ,,    |
| Ginseng              | Potatoes                                | ,,,,,   |
|                      | , | , , , , |
|                      | ·                                       | , , ,   |

## FIELD AND ROW CROPS

## **PEANUTS\***

|   |              | DOSAG                 | ERATE                                   |                  |  |
|---|--------------|-----------------------|---|------------------|--|
| HOW TO USE  | DISEASE      | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY    | USE RESTRICTIONS   |
| Apply using a ractor mounted spray boom equipped with hollow cone or low pressure rozzles (e.g. 8003LP, 8010LP or TK7.5 that produce large droplets). Nozzles should be adjusted to provide complete coverage of the row.  Vine spreaders may be used in combination with flat fan nozzles for banding. The two pounds per acre at a needs to be used in the band.  Applications may also be made by themigation. | (Sclerotinia | 2.0                   | 2.0                                     | application when | Do not apply within 10 days of harvest. (PHI = 10 days). |
| Minimum of 40 gals. of water per acre by ground application.  |              |                       |   |                  | in California.   |

#### RICE\*

|  |   | DOSAG                 | SE RATE                                 |  | i                                       |  |  |  |  |
|--|---|-----------------------|---|--|---|--|--|--|--|
| HOW TO USE   | DISEASE   | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY  | USE RESTRICTIONS                        |  |  |  |  |
| Apoly as a broadcast spray using aerial equipment.                     | Sheath blight<br>(Rhizoctonia<br>solani)              | 1.0                   | 1.0                                     | The first foliar application should be made between joint movement and booting. If | applications can be made                |  |  |  |  |
| Minimum of 10 callons  | Brown Spot  |                       |   | favorable disease conditions continue a second application                         |   |  |  |  |  |
| _  | , , , , ,   |                       | }                                       | can be applied 14 days after   |   |  |  |  |  |
|  | Sheath Spot<br>(Rhizoclonia<br>onyzae)                |                       | <br>                                    | the first application, but no later<br>than 75% heading.                           |   |  |  |  |  |
| ** ROVELU 50 SP will suppress or give partial control of this disease. | **Narrow Brown<br>Leaf spot<br>(Cercospora<br>onyzae) |                       |   |  | Not currently registered in California. |  |  |  |  |

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

ENDANGERED SPECIES RESTRICTIONS IN THE STATE OF ARKANSAS

The use of liprodione on rice is restricted to protect the endangered fat pocketbook pearly mussel (*Potamilus* cazax) and its nabitat. 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.

Pointsett County: Between Crowley's Ridge and the levee east of the Right Hand Chute of Little River and the St. Francis/Floudway. 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 soutif.

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

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## FRUIT TREE AND NUTS

## **ALMONDS**

|  |                                       | DOSAG                 | E RATE                                  |  |                  |
|--|---------------------------------------|-----------------------|---|--|------------------|
| HOW TO USE   | DISEASE                               | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY  | USE RESTRICTIONS |
| ROVRAL, 50 SP should<br>be used as an integral<br>part of a complete spray<br>program.<br>Apply as a foliar spray in | Blossom Blight<br>(Monilinia<br>laxa) | 1.0                   | 1.0                                     | 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 |                  |
| sufficient water to obtain<br>thorough coverage of<br>bloom, foliage, and/or fruit                                   | (Stigmina carpophila)                 |                       |   | regional recommendations.  Spray Schedule Table  |                  |
| (20 to 400 gallons per acre by ground equipment and in a minimum of 15 gals. per acre by air).                       |                                       | carpophila)           |   | Apply first at pink bud and, if conditions favorable for disease development persist or recur up to 3 subsequent   | ,                |
| The use of aerial application after petal  |                                       |                       |   | applications can be made at  |                  |
| fall may result in reduced control due to  | 1                                     |                       |   | 1) full bloom 2) petal fall  |                  |
| lack of canopy penetration and coverage.   |                                       |                       |   | 3) up to 5 weeks after cetal fall.   |                  |

# STONE FRUIT

## **PEACHES**

|  | DOSAGE RATE   |   |  |   |
|--|---|---|--|---|
| DISEASE  | POUNDS<br>PER<br>ACRE   | ROVRAL®<br>50 SP<br>Packets per<br>Acre   | WHEN TO APPLY  | USE RESTRICTIONS  |
| Blossom Blight<br>(Monilinia spp.)<br>Shot Hole<br>(Stigmina<br>carpophila)<br>Scab<br>(Ventura<br>carpophila) | 1.0 - 2.0   | 1.0 - 2.0   | bud tissue is susceptible to disease. (i.e., Pink but). If   | 3 applications of this product per season.  The last application may be made up to but not after petal fall.  |
|  |   |   | , ,  |   |
|  | Brown Rot Blossom Blight (Monilinia spp.) Shot Hole (Stigmina carpophila) Scab (Ventura carpophila) | DISEASE PER ACRE  Brown Rot Blossom Blight (Monilinia spp.) Shot Hole (Stigmina carpophila) Scab (Ventura carpophila) | POUNDS PER ACRE  Brown Rot Blossom Blight (Monilinia spp.) Shot Hole (Stigmina carpophila) Scab (Ventura carpophila) | POUNDS PER ACRE ACRE  Brown Rot Blossom Blight (Monilinia spp.) Shot Hole (Stigmina carpophila) Scab (Ventura carpophila)  POUNDS PER ACRE ACRE  1.0 - 2.0  1.0 - 2.0  Apply ROVRAL® 50 SP when bud tissue is susceptible to disease. (i.e., Pink buc). If conditions favorable for disease development persist or recur apply again at full bloom and at petal fall. |

# STONE FRUIT (continued)

## APRICOTS, CHERRIES, NECTARINES, PLUMS, AND PRUNES

|   |  | DOSAG                 | E RATE                                  |  |   |
|---|--|-----------------------|---|--|---|
| HOW TO USE  | DISEASE  | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY  | USE RESTRICTIONS  |
| ROVRAL, 50 SP should be used as an integral part of a complete disease control program.  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). | Brown Rot<br>Blossom Blight<br>(Monilinia spp.)                          | 1.0 - 2.0             | 1.0 - 2.0                               | Apply ROVRAL® 50 SP when bud tissue is susceptible to disease. (i.e. Red, Pink or White bud). If conditions favorable for disease development persist or recur apply again at full bloom and at petal fall.  | Do not make more than 4 applications of this product per season.  Preharvest applications may be made up to 7 days before harvest (PHI=7 days). |
| Under severe disease conditions, the higher rate and shorter spray interval is recommended.   | Fruit Brown Rot<br>(Monilinia spp.)                                      | 1.0 - 2.0             | 1.0 - 2.0                               | 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 recur, additional applications should be made. Applications can be made on a 7-14 day interval following the first preharvest application if needed. |   |
|   | Shot Hole<br>(Stigmina<br>carpophila)<br>Scab<br>(Ventura<br>carpophila) | 70-2.0                | 1.0 - 2.0                               | At least one of the blossom sprays should be applied at shuck-split. If only one blossom spray is applied, a second foliar spray may be made 14 days after the shuck-split application, followed by 2-3 preharvest sprays starting 5 weeks before harvest on a 7-14 day interval.  Mid-season cover sprays                     |   |
|   |  | 1                     |   | with another registered fungicide should not be eliminated.  |   |
| The use of aerial application after petal fall may result in reduced control due to lack of canopy penetration and coverage.  | Cherry Leaf Spot<br>(Blumeriella<br>jappii)                              | 1.0 - 2.0             | 1.0 - 2.0                               | 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.   |   |

## GINSENG\*

|   | ···············                            | DOSAGE RATE           |   |  |  |
|---|--|-----------------------|---|--|--|
| HOW TO USE  | DISEASE                                    | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY  | USE RESTRICTIONS   |
| ROVRAL® 50 SP should<br>be used as part of a<br>complete spray program.<br>Apply as a foliar spray in<br>sufficient water to obtain<br>thorough coverage using<br>ground equipment. | Alternaria Blight<br>(Alternaria<br>panax) | 1.5 - 2.0             | 20                                      | Make the first application when conditions become favorable for disease development. Continue applications on a 14 day interval if using the alternating spray program | Do not make more than 5 applications per season. Do not apply within 36 days of harvest (PHI = 36 days).         |
| Alternating Program: Use as an alternating treatment on a 14 day interval with another fungicide registered for control of Alternaria Blight Minimum 10 gallons of water per acre.  |  |                       |   |  |  |
| Tank Mix Program:  Apply as a tank mix with another fungicide registered for control of Alternaria Blight.  Minimum 10 gallons of water per acre.                                   |  | 1.0 - 1.5             | 1.0                                     | Make the first application when conditions become favorable for disease development. Continue on a 7 to 10 day interval.   | Do not apply more than 10 pounds of product per season.  Do not apply within 36 days of harvest (PHI = 36 days). |

<sup>\*</sup> Not currently registered in California.

## SMALL FRUIT

## **BERRIES**

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

|  | DOSAGE RATE                                    |                       | Į.                                      |               |   |
|--|--|-----------------------|---|---------------|---|
| HOW TO USE   | DISEASE  | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY | USE RESTRICTIONS                                      |
| Apply as a foliar spray with ground equipment in sufficient water to obtain thorough coverage at bloom and/or fruit.  Under severe disease conditions, the higher rate is recommended.  Minimum 100 gallons of water per acre. | Botrytis<br>Fruit Rot<br>(Botrytis<br>cinerea) | 1.0 - 2.0             | 1.9 - 2.0                               | ,             | 4 applications per season.  The final application can |

## **GRAPES**

|  |                                    | DOSAG                 | E RATE                                  |  |  |
|--|------------------------------------|-----------------------|---|--|--|
| HOW TO USE   | DISEASE                            | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY  | USE RESTRICTIONS   |
| 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.  Application may be made by chemication except in | Bunch Rot<br>(Bolrytis<br>cinerea) |                       |   | 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. | Do not make more than 4 applications per season.  The final application may be made up to 7 days before harvest. (PHI=7 days). |
| the state of New York.   |                                    |                       |   | Spray Schedule   |  |
| Under severe disease conditions, the higher rate is recommended  |                                    | 1.0 - 2.0             | <b>1.0-2.0</b>                          | 1) Early mid-bloom   | -  |
| This product must be used in conjunction with  |                                    | 1.5-2.0               | 2.0                                     | 2) Prior to bunch closing  |  |
| good cultural practices<br>designed to minimize<br>conditions conducive for  |                                    | 1.5-2.0               | 2.0                                     | Beginning of fruit ripening (veraison)   |  |
| Bunch Rot development. Thorough Coverage of the Bunches is essential. Minimum of 50 gals. of water per Acre.   |                                    | 1.5-2.0               | 2.0                                     | 4) Final application prior to harvest as needed.   |  |

**STRAWBERRIES** (Preplant Dip)

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

STRAWBERRIES (Foliar Spray)

|  |         | DOSAG                 | E RATE                                  |   |   |
|--|---------|-----------------------|---|---|---|
| HOW TO USE   | DISEASE | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY   | USE RESTRICTIONS  |
| Apply as a foliar spray in not ess than 100 gallons of water per acre.  Aeria applications can be made with a minimum of 10 gallons of water per acre.  Thorough coverage is essential for disease control.  Under severe disease conditions, the higher rate and shorter spray interval is recommended.  *RCVRAL® 50 SP will suppress or give partial correl of this disease. |         | 1.5 - 2.0             | 2.0                                     | Make the first application no later than 10% boom. Additional sprays may be made on a 10-14 day interval. | Do not make more than 4 applications per season.  ROVRAL® 50 SP may be applied up to and including the day o harvest. (PHI = 0 days). |
| Tank Mix Program  Apply as a tank mix with another fungicide registered for control of Gray Mold on strawbernes.  Do not combine with Rohian.  *RCVRAL® 50 SP will suppress or give partial control of this disease.   |         | 1.0                   | 1.0                                     | Make the first application no later than 10% bloom. Additional sprays may be made on a 7-14 day interval. | Do not maxe more than 10 applications perseason.  ROVRAL® 50 SP may be applied up to an including the day of harvest PHI = 0 days).   |

# VEGETABLES

# BEANS (Snap, Dry, and Lima)

|   |   | DOSAG                 | E RATE                                  |   |   |
|---|---|-----------------------|---|---|---|
| HOW TO USE  | DISEASE   | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY   | USE RESTRICTIONS  |
| 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.  Application can also be made by air* or chemigation.  Under severe disease conditions the higher rate and shorter spray interval should be used.  Thorough coverage is essential for disease control. | Gray Mold (Botrytis cinerea)  White Mold (Sclerotinia sclerotiorum) | 1.5 to 2.0            | 2.0                                     | 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. | maximum per season, with the last application                         |
| Minimum of 40 gallons<br>of water per acre by<br>ground or 10 gallons per<br>acre by air  |   |                       |   |   | * Aerial application is<br>not currently registered<br>in California. |

## **BROCCOLI**

|  |  | DOSAG                 | E RATE                                  |   |   |
|--|--|-----------------------|---|---|---|
| HOW TO USE   | DISEASE                                  | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY   | USE RESTRICTIONS  |
| 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. | Black Leg<br>(Leptosphaeria<br>maculans) | 2.0                   | 2.0                                     | 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. | 2 applications per crop. This product can be applied up to the day of harvest (PHI = 0 days). |
| Application may be made by chemigation.  |  |                       |   |   |   |
| Minimum of 40 gallons of water per acre.   |  |                       |   |   | ****  |

## **CARROTS**

| DOSAGE RATE  |  |                       |                                |   |   |
|--|--|-----------------------|--------------------------------|---|---|
| HOW TO USE   | DSEASE   | POUNDS<br>PER<br>ACRE | ROVRAL® 50 SP Packets per Acre | WHEN TO APPLY   | USE RESTRICTIONS  |
| Aoply as a foliar spray in sufficient water to obtain thorough coverage.  May be applied by ground, chemigation, or aerial equipment.  The higher rate and/or shorter spray interval should be used under severe disease conditions.  Minimum of 10 gals, of water per Acre. | (Alternaria<br>dauzi)<br>Black Crown Rot<br>(Alternaria<br>radizina) | 1.0 - 2.0             | 1.0 - 2.0                      | 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. | Do not make more than 4 applications of this product per season. This product can be applied up to and including the day of harvest (PHI = 0 days). |
| Tank Mix Program Apply as a tank mix with another fungicide registered for control of Alternaria on carrots.  Minimum of 10 gals, of water per Acre.   | Black Crown Rot  | 1.0                   | 1.0                            | 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. | 10 applications of this   |

**CHINESE MUSTARD (For Use In Florida Only)** 

| HOW TO USE   |        | DOSAGE RATE           |   |  |  |
|--|--------|-----------------------|---|--|--|
|  | DSEASE | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY  | USE RESTRICTIONS                           |
| Apply as a foliar spray in sufficient water to obtain thorough coverage.  Minimum of 50 gallons of water per acre. |        | 1.0                   | 1.0                                     | Continue applications on a 10-<br>14 day interval as long as | 4 applications of this product per season. |

## **DRY BULB ONIONS**

|   |   | DOSAG                 | ERATE   |  |  |
|---|---|-----------------------|---|--|--|
| HOW TO USE  | DISEASE   | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Two<br>ACRES*        | WHEN TO APPLY  | USE RESTRICTIONS   |
| Apply using ground, air, or chemigation equipment. For ground amplication, use a boom sprayer with either a single or multiple nozzies per row adjusted to provide complete coverage of each row.  Minimum of 50 gallons of water per acre by ground or 10 gallons per acre by air. | Botrytis Leaf Blight (Botrytis squamesa) Purple Blotch (Alternaria porri) Botrytis Nack Rot (Botrytis alii) | 1.5                   | * NOTE:<br>number of<br>packets is<br>for two<br>acres. | 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). |
| Tank Mix Apply as a tank mix with another fungicide registered for the control of Botrytis Leaf Blight, Botrytis Neck Rot or Purpe Blotth (as described above for ground application). Minimum of 51 gallons of water per acre by ground or 10 gallons per acre by air.             | (Botrytis squamesa) Purple Blotch (Alternana porni) Botrytis Neck Rot (Botrytis alii)                       | 1.0                   | * NOTE:<br>number of<br>packets is<br>for two<br>acres. | 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.       | 10 applications per season.  |

## **GARLIC**

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

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## LETTUCE (head & leaf types)

|  |   | DOSAG                 | E RATE                                  |   |  |
|--|---|-----------------------|---|---|--|
| HOW TO USE   | DISEASE   | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY   | USE RESTRICTIONS   |
| 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.  Under severe disease conditions the higher rates should be used  * When applying in a band do not reduce the acre rate.  Applications may also be made by air* or by chemigation. *** | Lettuce Drop<br>(Sclerotinia spp.)  Bottom Rot<br>(Rhizoctonia<br>solani) | 1.5 - 2.0*            | 2.0                                     | 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. | Do not make more than 3 applications to each crop.  Do not apply within 14 days of harvest (PHI=14 days).  Do not cultivate after application if necessary make a application during or immediately after cultivation.  Do not drench.  **Aerial application can only be used for the first spray (3-leaf to thinning).  ***Chemigation is not currently registered in California. |
| Minimum of 40 gallons of water per acre.   |   | :                     |   |   |  |

#### **POTATOES**

|   |  | DOSAG                 | E RATE                                  |  |  |
|---|--|-----------------------|---|--|--|
| HOW TO USE  | DISEASE                                    | POUNDS<br>PER<br>ACRE | ROVRAL®<br>50 SP<br>Packets per<br>Acre | WHEN TO APPLY  | USE RESTRICTIONS   |
| Apply with a boom sprayer with a single or multiple nczzles adjusted to provide thorough coverage of the foliage particularly the older leaves.  Under severe disease conditions the higher rate should be used for Early Bight.  Application can also be made by chemigation or by air.  When applying by sprinkler irrigation, deliver between 0.1 to 0.4 inches of water per acre.  Minimum of 10 gallons of water per acre. | Early Blight<br>(Alternaria .<br>solani)   | *.0 - 2.0             | 1.0 - 2.0                               | 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).  Do not irrigate for 24 hours after application. |
| Apply with a boom sprayer with a single or multiple nezzles adjusted to provide thorough coverage of the lower stems and branches and the soil surface surrounding the plants or by chemigation.  Thorough coverage is essential for control.  Minimum of 10 gallons of water per acre.   | White Mold<br>(Sclerotinia<br>sclerotioru: | 2.0                   | 2.0                                     | Apply just oner 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.        | Do not apply by air for<br>White Mold control<br>except in California.   |

### DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS

Apoly this product only through sprinkler irrigation systems including microjet, soliid 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 off 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<sup>6</sup> 50 SP Fungicide has been completed, further field imigation 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 targer 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

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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.

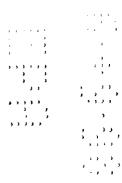
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ROVRAL® 50 SP Fungicide (PENDING) Submitted 6/5/98.



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