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100-735

1984



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
100-735

Date of Issuance:
MAY 3 1984

Term of Issuance: Conditional

Name of Pesticide Product:
Ridomil 50W

NOTICE OF PESTICIDE:
 Registration
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):
Ciba-Geigy Corporation
P.O. Box 18300
Greensboro, NC 27419-8300

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Change the label by revising the EPA Registration Number to read, "EPA Reg. No. 100-735".
3. Submit two copies of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Signature of Approving Official:

Date:
MAY 3 1984

Highlighted copy 20734

WPS
RIDOMIL® 50W/WATER SOLUBLE POUCH
(Front Cover)

Ridomil® 50W

Fungicide

For the control of certain diseases in various crops caused by the Oomycete class of fungi.

One Pound
Net Weight

Four Pounds
Net Weight

ACCEPTED
with COMMENTS
In EPA Letter Dated

MAY 3 1994

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

100-735

Active Ingredient:

Metalaxyl: N-(2,6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester	50.0%
Inert Ingredients:	50.0%
Total:	100.0%

) Ridomil 50W is a wettable powder.

EPA Reg. 100-

KEEP OUT OF REACH OF CHILDREN.

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements on back of bag.

See directions for use on panel on right.

) This outer protective container contains Ridomil 50W in an inner water-soluble bag. Entire inner bag and contents dissolve in water. After opening outer container, immediately drop entire unopened inner bag into the partially filled sprayer or mix tank. Do not handle the soluble bag or expose it to moisture since this may cause rupturing.

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Ciba Plant Protection
Ciba-Geigy Corporation
Greensboro, North Carolina 27419

Ciba-Geigy

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DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product. If terms are not acceptable, return the unopened product container at once.

Conditions of Sale and Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Ciba-Geigy or the Seller. All such risks shall be assumed by the Buyer.

Ciba-Geigy warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. Ciba-Geigy makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Ciba-Geigy or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Ciba-Geigy and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Ciba-Geigy.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Shoes plus socks
- Protective eyewear

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, OR ILLEGAL RESIDUES.

General Information

Ridomil 50W is a systemic fungicide for use on selected crops to control certain diseases caused by members of the Oomycete class of fungi. Other fungicides must be used to control diseases incited by other classes of fungi.

THIS PRODUCT IS NOT TO BE USED IN FOLIAR APPLICATIONS UNLESS SPECIFIED ON THIS LABEL OR IN SOLUTIONS USED TO DIP PLANTS. DO NOT USE IN NURSERIES, TURF, OR LANDSCAPE PLANTINGS UNLESS SPECIFIED IN THIS LABEL.

Note: Ridomil is a systemic fungicide having a specific mode of action and could be subject to development of resistant strains of fungi. Development of resistance cannot be predicted. Therefore, Ciba-Geigy cannot assume liability for crop damage resulting from resistant strains of fungi. If treatment is not effective following the use of Ridomil as recommended, a resistant strain of fungi may be present. If the treatment is ineffective due to the presence of a Ridomil resistant strain of fungi, neither Ridomil nor any other fungicide with similar action will effectively control that disease. Consideration should then be given to the prompt use of other types of suitable fungicides. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance on your particular crop and disease control situation.

Do not make foliar applications to field grown tobacco, or other crops unless specified since this practice may encourage more rapid development of resistance.

Where rate ranges are specified on this label, use the higher rate when heavy disease pressure is expected and the lower rate when disease pressure is expected to be light unless otherwise noted.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

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Mixing Instructions

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary to maintain tank mix uniformity. Maintain a maximum of agitation throughout the spraying operation. Flush spray tank thoroughly with water daily after use and dispose of pesticide rinsate by application to an already treated area.

Precautions: (1) Soluble bags of Ridomil 50W must be dissolved completely in water before any other tank mix partner, including micronutrients or other liquid or dry fertilizers are added to the spray solution. (2) A minimum of 5 gallons of water per acre must be used in the mix tank.

Ridomil 50W Alone: Add 2/3 of the required amount of water to the spray or mixing tank. With the agitator running, drop the required number of unopened soluble bags of Ridomil 50W into the tank all at once. Continue agitation while adding the remainder of the water. Begin application of the spray solution after the bags have dissolved and the material has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

BEFORE TANK MIXING RIDOMIL 50W WITH OTHER REGISTERED PRODUCTS FOR ANY USE ON THIS LABEL, READ THE LABEL OF THE TANK MIX PARTNER TO BE CERTAIN IT IS LABELED FOR USE ON THE PARTICULAR CROP AND THAT USE PATTERNS ARE COMPATIBLE WITH THOSE OF RIDOMIL 50W.

Ridomil 50W + Tank Mixtures: Add 2/3 of the required amount of water to the spray or mixing tank. With the agitator running, drop the required number of unopened soluble bags of Ridomil 50W into the tank all at once. Continue agitation while adding the remainder of the water. Allow the bags of Ridomil 50W to dissolve and the product to completely disperse into the mix water. Then add the desired amount of other products recommended for tank mixture and allow them to become completely dispersed. Continue agitation to maintain a uniform suspension until all of the spray solution has been applied.

Note: Do not let spray mixture stand overnight in the spray tank. Rinse spray tank at the end of the day.

Application Instructions

Apply Ridomil 50W by ground or air in sufficient water to provide uniform coverage of the soil surface. Apply in a minimum of 20 gallons/A for ground applications and 5 gallons/A by air. Refer to the specific crop directions for use for application recommendations.

For banded applications, the area actually is the area covered

by the band, not total cropland area planted. Some row-crop recommendations are based on treating in-the-row and these rates generally are specified as amounts of product per certain row length (often 1,000 feet). Others express rates as amount per treated acre which means the total area treated with the pesticide. If rates are expressed as amount per treated acre and banded applications are used, the amount of pesticide used per acre will be proportionately less. The following formula can be used to calculate the amount of Ridomil 50W needed per acre of crop when banded applications are made:

$$\frac{\text{band width in inches}}{\text{row spacing in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

Application Through Irrigation Systems

Ridomil 50W alone or in combination with other fungicides which are registered for sprinkler irrigation may be applied through irrigation systems.

Apply this product only through center pivot, solid set, hand-move, moving wheel, micro-sprinkler or drip irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Operating Instructions:

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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 shut down.

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4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Application Instructions

Ridomil 50W must be applied on the schedule specified in the specific crop use recommendations, not according to the irrigation schedule. If irrigation schedules are used, ground or aerial applications must supplement chemigation applications to achieve adequate disease control.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Users should check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

Center-Pivot Irrigation Equipment (Use only with drive systems which provide uniform water distribution)

1. Determine the size of the area to be treated.
2. Determine the time required to apply 1/4 inch water over the area to be treated when the system and injection equipment is operated at normal pressures recommended by the equipment manufacturer. Run the system at 80-95% of the manufacturer's rated capacity.
3. Using water, determine the injection pump output when operated at normal line pressure.
4. Determine the amount of Ridomil 50W required to treat the area covered by the irrigation system.
5. Add the required number of Ridomil 50W soluble bags and sufficient water to meet the injection time requirements to the solution tank. (See Mixing Instructions section of this label.)
6. Maintain constant solution tank agitation during the

injection period.

7. Stop injection equipment after treatment is completed. Continue to operate the system until the Ridomil 50W solution has cleared the sprinkler head.

Solid Set, Hand-Move, and Moving Wheel Irrigation Equipment:

1. Determine the acreage covered by the sprinklers.
2. Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30 minute interval.
3. Determine the amount of Ridomil 50W required to treat the area covered by the irrigation system.
4. Add the required number of Ridomil 50W soluble bags into the same quantity of water used to calibrate the injection period. (See Mixing Instructions section of this label.)
5. Operate system at the same pressure and time interval established during the calibration.
6. Inject Ridomil 50W at the end of the irrigation cycle or as a separate application to maximize the effectiveness of the fungicide.
7. Stop injection equipment after treatment is completed. Continue to operate the system under the Ridomil 50W solution has cleared the last sprinkler head.

Micro Sprinkler or Drip Irrigation Systems

General Instructions

- Each run of the irrigation system must be calibrated separately to determine the time it takes water to move through the system and to make sure all emitters in the system are putting out the same amount of water.
- Only pressure injection or venturi equipment is recommended.
- Determine the area to be treated in each irrigation run.
- Measure the output of each of the emitters or drip tubes closest to and farthest from the injector site.
- For calibration, substitute a concentrated detergent (such as Wisk) for the Ridomil 50W in the injector tank. It is important to use the same volume of soap solution as the planned volume of Ridomil 50W solution when calibrating the system. The detergent will bubble as it leaves the emitters. The time period over which bubbles occur should be checked for both the closest and farthest emitters. If these times are not within two minutes of each other, adjust

the dilution ratio and/or the injection rate.

Step-by-Step Instructions

- Before starting to calibrate, operate the system until all the emitters are putting out at equal flow rates or until the system is operating at full pressure.
- Make up an indicator solution of detergent or fertilizer, using the same ratio to be used with mixing Ridomil 50W.
- Set the injector to apply the indicator solution at the injection rate to be used in the actual Ridomil 50W application.
- Attach a 5-inch length of flexible tubing over the emitter closest to the injection point, another length over the emitter farthest away. Both emitters should be monitored to determine the time intervals that the indicator solutions are observed.
- Begin injecting the indicator solution. Direct the flow from the tubes at the emitters into a small container. Begin timing when the indicator solution is first detected, stop timing when the indicator solutions are no longer detected.
- If the period of detection of the indicator solution between the two emitters are within two minutes of each other, comparable coverage will be obtained. If they are not, make adjustments by increasing the dilution ratio, using more water per part of Ridomil 50W or adjust the injector to a slower flow rate.
- Once the system is calibrated, dilute the needed amount of Ridomil 50W with water using a minimum of 10 parts water to 1 part Ridomil 50W.
- Do not begin to inject Ridomil 50W into the system until all emitters are producing equal flow rates, or until the system is at full pressure.
- Inject the Ridomil 50W into the system at the end of the irrigation set in 1/2 - 1 inch of irrigation water.

Alfalfa

Ridomil 50W applied to the soil at planting will provide control of damping-off caused by Pythium spp. and root rots caused by Phytophthora spp.

Stand Establishment

Apply 1/2 lb. to 1 lb./acre as a broadcast surface spray at planting in a minimum of 20 gallons of water or following impregnation on fertilizer.

If alfalfa seed was previously treated with metalaxyl as a seed dressing, an application of Ridomil 50W at 1/2 lb./acre is recommended at planting. Use the higher rate (1 lb./acre) in areas where disease pressure is expected to be heavy.

Note: To avoid possible illegal residues, do not feed green forage or cut hay for 60 days following application.

Apples (Bearing and Nonbearing Trees)

Use of Ridomil 50W will aid in the control of crown, collar and root rot caused by Phytophthora spp. when used in conjunction with good cultural practices and rootstocks that are most tolerant to the disease. Ridomil 50W applications should be made before symptoms appear, especially in areas of the orchard favorable for disease development. Ridomil 50W will not revitalize trees showing moderate to severe disease symptoms.

Broadcast Spray or Banded Applications: Apply 8 lbs./treated acre as a broadcast spray (3 oz./1,000 sq. ft.) in sufficient water to obtain thorough coverage. The treated area is based on the area under the tree canopy or the area of the sprayed row. Soil surface sprays of Ridomil 50W will not be effective until the fungicide is moved into the root zone by rainfall or irrigation. Applications should be made in early spring before growth starts and in the fall after harvest but before the ground freezes.

Drench: Mix 1 lb. of Ridomil 50W with 100 gals. of water. Apply the amount of diluted mixture indicated in the table below around the trunk of each tree. Applications should be made in early spring before growth starts and in the fall after harvest but before the ground freezes. On new plantings, delay the first application until two weeks after planting.

Note: To determine trunk diameter, measure the trunk 12 inches above the soil line.

<u>Trunk Diameter</u>	<u>Lbs. of Diluted Mixture/Tree</u>
< 1 inch	1 lb.
1-3 inches	2 lbs.
3-5 inches	3 lbs.
> 5 inches	4 lbs.

Notes: (1) Do not dip roots of trees in or spray bare roots with solutions containing Ridomil 50W. (2) Do not graze or feed cover crops in treated orchards, or illegal residues may occur.

Asparagus

Ridomil 50W will control crown rot and spear rot caused by Phytophthora spp.

Apply 2 lbs./A as a broadcast spray in a minimum of 10 gals. of water over the beds.

Cutting Beds: Apply 30 to 60 days before the first cutting. A supplemental application may be made, for additional control, by applying just before the beginning of harvest.

New Plantings: Apply after planting seedlings or after covering one-year old crowns.

Avocados

Root Rot - Phytophthora cinnamomi

Begin applications at the start of the growing season or at transplanting. Two additional applications should be made at three-month intervals. Applications are not needed during the winter months of November through February. Ridomil 50W may be applied as a sleeve drench at the time of transplanting, as a soil surface spray under sprinkler irrigation systems, as a directed spray under drip emitters or injected into the irrigation water.

Sleeve Drench: Mix 1/2 oz. of Ridomil 50W with 18 gals. of water. At the time of transplanting, drench the roots inside the sleeve with 1 qt. of Ridomil solution per tree.

Note: The sleeve drench will not replace the soil surface applications for long term control of root rot.

Sprinkler Irrigation: Apply as a soil surface spray under the canopy of the tree in sufficient water to obtain uniform coverage. See the following table for the amount of Ridomil 50W to use based on the diameter of the tree canopy. Start applications at the beginning of the growing season or at transplanting and continue at three-month intervals.

Drip Irrigation: Apply the recommended amount of Ridomil 50W (see table) to the soil directly under the drip emitter at each tree. If there is more than one emitter per tree, distribute the total amount of Ridomil 50W needed among the emitters.

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Injection into Irrigation Water (Sprinkler or Drip Irrigation Only): Inject Ridomil 50W into the irrigation water at a rate of 1-2 oz./1,000 gals. (3 3/4-7 1/2 ppm active ingredient) at each irrigation. If Ridomil 50W is not applied at each irrigation, use the table below to determine how much Ridomil 50W should be injected into the irrigation water. If Ridomil is to be used more frequently than every three months, adjust the rates so that no more than the specified amount is applied during each three-month period. See the General Information section of this label for further instructions and precautions when making applications through irrigation systems.

<u>Diameter of Tree Canopy (Ft.)</u>	<u>Amount of Ridomil 50W Per Ten Trees/3 Months</u>
2	1/4-1/2 oz.
5	1 1/2-3 oz.
10	6-13 oz.
15 or wider	15-29 oz.

Notes: (1) For best results, use Ridomil 50W as soon as soil tests indicate the presence of Phytophthora. (2) For new plantings, the use of Phytophthora resistant rootstocks with Ridomil 50W is recommended. Mature trees in moderate to advanced stages of decline cannot be cured with Ridomil 50W. (3) Do not apply more than 24 lbs./A of Ridomil 50W/year. (4) Do not make an application within 28 days of harvest, or possible illegal residues may result.

Blueberries

Use of Ridomil 50W will aid in the control of root rot caused by Phytophthora spp. when used in conjunction with good cultural practices to minimize disease problems. Ridomil 50W will not revitalize plants showing moderate to severe root rot symptoms.

Established Plantings: Apply 1/2 lb./1000 linear ft. of row (7.25 lbs./acre broadcast basis) in a three foot band over the row before the plants start growth in the spring. One additional application may be made to coincide with periods most favorable for root rot development.

New Plantings: Apply 8 lbs./A broadcast to the soil at or after the time of planting. One or two additional applications should be made at 2-3 month intervals or to coincide with periods most favorable for root rot development. For banded applications, an 18-inch band over the row is recommended. Use the formula in the General Information section of the label to calculate the amount needed per acre.

Note: On new plantings, do not apply more than 14.4 lbs. of

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Ridomil 50W/A broadcast during the 12 months before bearing harvestable fruit or possible illegal residues may result.

Citrus

Includes grapefruits, lemons, limes, oranges, tangelos, tangerines, citrus citron, kumquats and hybrids of these.

Use Ridomil 50W on citrus for control of citrus foot rot, root rot, and trunk cankers caused by Phytophthora spp. Ridomil 50W can be sprayed as a topical canker application and as a soil application.

Note: Where nematodes are a problem, best results can be achieved if effective EPA-registered nematicides are used. Nematicides can be used in combination or in sequence with Ridomil applications.

Precaution: For best Phytophthora control, a combination of cultural practices and resistant varieties is recommended. The use of Ridomil 50W is not recommended in Florida for use on the highly susceptible sweet orange rootstock.

Citrus in Nurseries (Arizona, California, Florida and Puerto Rico Only)

Make the first application of Ridomil 50W at the time of planting. Make repeat applications at three-month intervals during the period when trees are actively growing. For banded applications, use a band wide enough to cover the root systems of the plants. Do not apply Ridomil 50W solutions to bare roots.

Soil Drench: Apply 2-3 oz./100 gals. of water as a drench over the row at a rate of 100-250 gals./1,000 feet of row. The width of the drench treatment should be wide enough to cover the root systems of the plants. Follow with a 1/2-1 inch irrigation over the treated area.

Soil Surface Spray: Apply 4-8 lbs./treated acre in a broadcast or banded surface spray to seedbeds, liners, or bedded stock in sufficient water to obtain thorough coverage. If applications are banded, the treated area should be wide enough to cover the root systems of the plants. Follow the applications with a 1/2-1 inch irrigation over the treated area.

Citrus Resets or New Plantings (Arizona, California, Florida and Puerto Rico Only)

Make the first application of Ridomil 50W to citrus resets or new plantings at the time of transplanting. Make up to three additional applications per year at three-month intervals or when root growth flushes occur.

Water Ring Drench: Mix 2-3 oz./100 gals. of water. Apply 5 gals. of the mix around the base of each tree within the watering ring.

Soil Surface Spray (Arizona and California Only): Apply 4-8 lbs./treated acre (1.5-3 oz./ 1,000 sq. ft.) in sufficient water to obtain uniform coverage of the soil surface. Apply spray to the soil surface beneath the tree canopy. If natural rainfall is not expected within three days of a soil surface application, irrigate with 1/2-1 inch water over the treated area. See instructions below for application through irrigation water.

Soil Surface Spray (Florida and Puerto Rico Only):

Apply 4 lbs./treated acre (1.5 oz./1,000 sq. ft.) under the canopy of the tree. Two-three applications per year are recommended. Applications may be made on a spring + summer, summer + fall or spring + summer + fall schedule.

Established Plantings

Soil Application (Florida and Puerto Rico Only): Apply 2 lbs./treated acre to groves that have a Phytophthora propagule count of 10 to 20 per cubic centimeter (cc) of soil as a feeder root rot disease maintenance treatment. Two-three applications per year are recommended. Applications may be made on a spring + summer, summer + fall or spring + summer + fall schedule. For groves with extremely high propagule counts (above 20 per cc of soil), apply 4 lbs./treated acre for one year (2-3 applications) to reduce the population.

Soil Surface Spray (Arizona and California Only): For best results, begin Ridomil applications during the spring root-flush period. One or two additional applications per year can be made at three-month intervals or to coincide with flushes of root growth. Use the following table to determine the proper rate based on tree size and the number of applications per year. For applications based on broadcast rates, use Ridomil 2E at 4-8 lbs./A (1 1/2-3 oz./1,000 sq. ft.) when three applications are planned and at 12 lbs./A (4 1/2 oz./1,000 sq. ft.) when two applications are planned. Apply in sufficient water to provide uniform coverage.

<u>Diameter of Tree Canopy (Ft.)</u>	<u>Oz. of Ridomil 50W per Ten Trees</u>	
	<u>2 applications/yr.</u>	<u>3 applications/yr.</u>
5	3/4	1/2
10	3 3/4	2 1/2
15	7 1/2	5.0
20	15	10.0

Trunk Spray for Control of Gummosis Caused by Phytophthora spp. (Arizona, California and Texas only): Add 4 lbs. of Ridomil 50W to 3 gallons of water and spray the surface of the trunks using enough spray to thoroughly wet the cankers. Ridomil may be applied up to three times per year.

Notes: (1) To avoid possible illegal residues, do not make trunk and soil applications to the same tree in the same cropping season (2) Do not apply more than 24 lbs. of Ridomil 50W/treated acre/year.

Cole Crops, (Broccoli, Cabbage and Cauliflower)

Includes broccoli, Chinese broccoli (gai lon, white flowering broccoli), cabbage, Chinese cabbage (tight-heading varieties only), and cauliflower only.

) Ridomil 50W applied as a soil application at planting will control damping-off caused by Pythium spp. and basal stem rot caused by Phytophthora spp. Applications may be made preplant incorporated or as a soil surface spray after planting.

Preplant Incorporated Application: Apply 2-4 lbs./treated acre as a broadcast soil application in sufficient water to provide uniform coverage and incorporate in the top two inches of soil. For control of Pythium damping-off only use 1/2-1 lb./A. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre.

) Surface Application: Apply 2-4 lbs./treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. If natural rainfall is not expected before the seeds start germinating, Ridomil 50W should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2-1 inch sprinkler irrigation.

Notes: (1) Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants. (2) Do not dip plants in solutions containing Ridomil 50W, or crop injury may occur. (3) Ridomil 50W may be tank mixed with Terraclor® 75W to control club root (Plasmodiophora brassicae) or wirestem/black root (Corticium solani). Before applying observe all precautions, limitations, rates, and directions for use including the need for incorporation on the Terraclor 75W label.

Cotton

Seed Rots and Seedling Diseases of Cotton Caused by Pythium spp.

Apply 1/8-1/4 lb./13,000 linear feet of row (0.15-0.3 oz./1,000 linear feet) as an in-furrow spray in 5-15 gals. of water at planting. Mount the spray nozzle so the spray is directed into the furrow over the seed just before the seeds are covered.

For control of Pythium and Rhizoctonia apply 2-4 qts. Terraclor 2E or 1 1/3-2 3/4 lbs. Terraclor 75W/13,000 linear feet of row in tank mixture with Ridomil 50W or use labeled rates of Ridomil PC® 11G.

Note: When Ridomil 50W is applied with Terraclor 2E or Terraclor 75W, observe all precautions and restrictions that appear on the Terraclor 2E or Terraclor 75W labels.

Cucurbit Vegetables

Includes balsam pear (bitter melon), Chinese waxgourd (Chinese preserving melon), citron melon, cucumber, gherkin, edible gourds, cantalope, casaba, crenshaw, honeydew melon, honey balls, mango melon, muskmelon, Persian melon, pumpkin, summer squash, winter squash, watermelon, and cucurbit hybrids only.

Ridomil 50W applied at planting will provide control of damping-off and cottony leak caused by Pythium spp. Applications may be made preplant incorporated or as a soil surface spray after planting.

Preplant Incorporated Application: Apply 2-4 lbs./treated acre as a broadcast soil application in sufficient water to provide uniform coverage and incorporate in the top two inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre.

Surface Application: Apply 2-4 lbs./treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. If natural rainfall is not expected before the seeds start germinating, Ridomil 50W should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2-1 inch sprinkler irrigation.

Notes: (1) Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants. (2) Do not dip plants in solutions containing Ridomil 50W, or crop injury may occur.

Deciduous Fruits and Nuts in Orchards
(Nonbearing)

Phytophthora Diseases

Use of Ridomil 50W will aid in the control of crown, collar, and root rot of deciduous fruit and nut trees caused by Phytophthora spp. when used in conjunction with good cultural practices and rootstocks that are most tolerant to the disease. Applications should be made before symptoms appear, especially in areas favorable for disease development. Ridomil 50W will not revitalize trees showing moderate to severe disease symptoms.

Make the first application at the time of planting (See Notes below.). Additional applications should be made at three-month intervals during the time when conditions are favorable for disease development. For established plantings, make the first application in the spring before growth starts.

Apply 8 lbs./treated acre (3 oz./1,000 sq. ft.) in sufficient water to obtain uniform coverage of the soil under the canopy of the trees. For banded applications, use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. Soil surface sprays of Ridomil 50W will not be effective until the fungicide is moved into the root zone by rainfall or irrigation.

Notes: (1) Do not apply to plantings that will bear harvestable fruit within 12 months of the last application, or possible illegal residues may result. (2) To avoid injury, do not use Ridomil 50W to dip or spray tree roots. Do not concentrate it around the tree trunks. (3) Do not apply to trees under stress. (4) In California, do not apply Ridomil 50W to newly planted trees within 90 days of planting. (5) Do not apply more than 24 lbs. of Ridomil 50W/treated acre/year.

Hops

Downy mildew (Pseudoperonospora humuli): Apply 1 lb./A of hops in a minimum of 20 gals. of water to the soil surface over the crowns after pruning, but before training. Early application before shoots are six inches long is preferable.

Notes: (1) Do not apply after training or make more than one application per year, and (2) Do not feed hop refuse to livestock, or possible illegal residues may result.

Leafy Vegetables (Head Lettuce and Spinach Only)

Ridomil 50W applied as a soil application will control damping-off caused by *Pythium* spp. in head lettuce and spinach and white rust (*Albugo occidentalis*) and downy mildew in spinach. Applications may be made banded over the row, preplant incorporated, or injected with liquid fertilizer.

Preplant Incorporated Application: Apply 2-4 lbs./treated acre as a broadcast soil application in sufficient water to provide uniform coverage and incorporate in the top two inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 2E needed per acre.

Surface Application: Apply 2-4 lbs./treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. If natural rainfall is not expected before the seeds start germinating, Ridomil 50W should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2-1 inch sprinkler irrigation.

White Rust and Downy Mildew Control (Spinach Only): In addition to the preplant incorporated or surface application described above, apply 1/2 lb. of Ridomil 50W/A of crop, shanked in 40-50 days after planting or after the first cutting. One other application may be shanked in after the next cutting. Use sufficient mechanical or bypass agitation to keep the Ridomil 50W mixed with the water.

Notes: (1) The additional applications of Ridomil 50W noted above and made after each cutting by shanking the fungicide into the beds provides continuing control of white rust. However, white rust can only be controlled in a preventive disease control program that begins with an application of Ridomil to the soil at planting. If Ridomil is not used at planting, do not use Ridomil at any other time throughout the season. Do not apply Ridomil in foliar applications or in situations where white rust infections are already established. The use of Ridomil 50W in curative applications greatly increases the risk of the fungus developing resistance to metalaxyl. The development of resistance will destroy the effectiveness of Ridomil 50W in controlling white rust. (2) To avoid possible illegal residues, do not harvest spinach within 21 days of a Ridomil 50W application. (3) Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants.

Legume Vegetables (Succulent or Dried)

Includes field beans, French beans, kidney beans, lima beans, mung beans, navy beans, pinto beans, runner beans, snap beans, wax beans, broad beans (fava beans), chickpeas (garbanzo beans), lentils, lupines (sweet, white sweet, white and grain), garden peas, field peas, sugar peas, southern peas (blackeyed peas, crowder peas, cowpeas, catjang) and edible soybeans, etc.

Pythium Damping-Off and Root Rot: Ridomil 50W applied at planting will control damping-off and root rot caused by Pythium spp. Applications may be made preplant incorporated, or as a soil surface spray after planting.

Preplant Incorporated Application: Apply 1-2 lbs./treated acre as a broadcast soil application in sufficient water or liquid fertilizer to provide uniform coverage and incorporate in the top two inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre.

Surface Application: Apply 1-2 lbs./treated acre at planting in sufficient water to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. If natural rainfall is not expected before the seeds start germinating, Ridomil 50W should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2-1 inch sprinkler irrigation.

Notes: (1) Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants. (2) Ridomil 50W may be tank mixed with Terraclor 2E or 75W to control Rhizoctonia root and stem rot or white mold (Sclerotinia sclerotorium) in snap and dry beans. Observe all precautions, limitations, rates, and directions for use on the respective Terraclor label before applying.

Onions - Dry Bulb, Green*, and Onions Grown for Seed

*Includes green onions, leeks, spring onions or scallions, Japanese bunching onions, green shallots, or green eschalots.

Ridomil 50W applied at planting will control damping-off caused by Pythium spp. Applications may be made preplant incorporated or as a soil surface spray after planting.

Preplant Incorporated Application: Apply 1-2 lbs./treated acre as a broadcast soil application in sufficient water to provide uniform coverage and incorporate in the top two inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 2E needed per acre.

Surface Application: Apply 1-2 lbs./treated acre at planting in sufficient water to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 2E needed per acre. If natural rainfall is not expected before the seeds start germinating, Ridomil 50W should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2-1 inch sprinkler irrigation.

Note: Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants.

Papaya (Hawaii Only)

Ridomil 50W aids in the control of Phytophthora root rot of papaya in nurseries and in new plantings in the field.

Papaya in Nurseries: Apply Ridomil 50W as a soil drench by mixing 1-2 oz. with 40 gals. of water and applying to 800 sq. ft. Apply to seedlings 3 to 4 weeks after planting seed. Repeat application one month later if necessary. Do not apply more than twice per year in the nursery.

Papaya in the Field - New Plantings: Make the first application of Ridomil 50W at the time of transplanting to the field or within one week of transplanting. Apply 3 1/2 to 7 lbs./A* of soil treated (1 1/4 to 2 1/2 oz./1,000 sq. ft.) as a soil surface spray in sufficient water to obtain thorough coverage of the soil under the canopy of the trees. After application, immediately irrigate with 1/8 to 1/4 inch of water. Repeat in 2-4 weeks if conditions are favorable for disease. Use the table below as a guide for treating individual trees.

<u>Diameter of Tree Canopy (Ft.)</u>	<u>Oz. Ridomil 2E Per Ten Trees</u>
3	1/10 - 3/16
4	3/16 - 3/8
6	3/8 - 3/4
8	3/5 - 1 1/4

*1 pound = 1/2 lb. ai

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Notes: To avoid possible illegal residues, (1) Do not apply more than two applications per year in the field to newly transplanted stock, and (2) Do not apply within 3 months of harvest.

Peanuts

Ridomil 50W is a soil-applied systemic fungicide for use in control of seedling and pod diseases of peanuts incited by Pythium spp.

Seedling Diseases: Apply 1/2 lb./A of crop as an application to the seed in-furrow or in a 7-inch band at the time of planting. For in-furrow applications, position the spray so the fungicide is mixed with the soil covering the seed. Avoid spraying the seed directly with the spray solution or crop injury may occur.

Pod Rot: Apply 1-2 lbs./A at early pod set or pegging. Make applications directly to soil in a 7-inch band.

Notes: (1) Where pathogens other than Pythium spp. are present, use fungicides that control those diseases in combination with Ridomil 50W. (2) Where the predominant pod rot pathogens are Pythium spp. and Rhizoctonia spp.; use Ridomil PC 11G at labeled rates.

Peppers and Eggplant

Soil applications of Ridomil 50W will control damping-off caused by Pythium spp. and crown rot caused by Phytophthora capsici. Ridomil 50W must be applied to the soil before the plants are infected with Phytophthora to obtain satisfactory disease control.

Apply 2-4 lbs./treated acre at the time of planting in sufficient water (20-50 gallons) to provide uniform coverage. If rainfall is not expected before the plants begin growth, Ridomil 50W should be incorporated mechanically before planting or be moved into the root zone after planting with 1/2-1 inch of sprinkler irrigation water. For banded applications, a 12-16 inch band is recommended. After the initial application, two supplemental post-directed applications at 2 lbs./treated A should be made at 30-day intervals. The spray should be directed at the base of the plants and cover 6-8 inches of soil on either side of the plants. Such applications must be incorporated mechanically or by sprinkler irrigation to move the Ridomil into the root zone. Ridomil 50W may be applied shanked in as a band treatment to either side of the plant. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre.

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Precautions: (1) Ridomil 50W may cause some yellowing of the pepper leaves. (2) Plants already infected with *Phytophthora* cannot be cured with Ridomil 50W applications. (3) The foliar blight phase of *Phytophthora* cannot be controlled with foliar applications of Ridomil 50W. (4) Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants.

Notes: To avoid possible illegal residues, (1) Do not apply within 7 days of harvest, and (2) Do not apply more than 6 lbs. of Ridomil 50W per acre of crop per season.

Pineapple

Ridomil 50W, applied as a "seed piece" dip, provides effective control of heart rot disease of pineapple caused by *Phytophthora* spp.

Apply Ridomil 50W as a crown dip before planting at the rate of 1-2 lbs./100 gals. of water. Use 75 to 100 gals. of dip solution per planted acre, depending on crown size, plant density and dipping techniques.

Note: If there is a crop failure within one year of planting treated crowns, do not harvest plant material for animal feed.

Raspberries

Ridomil 50W is a soil-applied systemic fungicide for use in the control of *Phytophthora* root rot.

Apply 1/2 lb./1,000 linear ft. of row to the soil surface in a three-foot band over the row. Make one application in the spring and another in the fall after harvest. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre.

Note: Do not apply Ridomil 50W within 45 days before harvest or possible illegal residues may result.

Root and Tuber Vegetables*

*To prevent the development of resistance, do not apply Ridomil 50W on potatoes.

Includes artichoke (Jerusalem), beet (sugar and table), carrot, cassava, chicory, ginger, ginseng, horseradish, parsnip, radish, rutabaga, salsify, sweet potato, turnip and yams.

Ridomil 50W applied to the soil at planting will provide control of diseases caused by *Pythium* and *Phytophthora* spp. Applications may be made preplant incorporated or as a soil surface

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spray after planting.

Preplant Incorporated Application: Apply 2-4 lbs./treated acre as a broadcast soil application in sufficient water to provide uniform coverage and incorporate in the top two inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per dose.

Surface Application: Apply 2-4 lbs./treated acre at planting in sufficient water to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. If natural rainfall is not expected before the seeds start germinating, Ridomil 50W should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2-1 inch sprinkler irrigation.

Note: Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants.

Soybeans

Ridomil 50W is a soil-applied systemic fungicide for use in the control of Phytophthora root and stem rot and Pythium damping-off. Ridomil 50W may be applied broadcast, banded or in the seed furrow before the seeds are covered. The seed furrow applications will provide more consistent results if rain is not expected before the seeds germinate.

For best results against Phytophthora root and stem rot, use Ridomil 50W with soybean varieties that have some tolerance to the races of Phytophthora present in the field. The higher rate of Ridomil 50W should be used in areas with a history of heavy Phytophthora damage. Under heavy late season Phytophthora pressure, Ridomil 50W may not provide complete control.

Surface Applications: For full season control, apply 2 1/2 lbs./treated acre in sufficient water to provide uniform coverage at the time of planting. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. For early to mid season control, apply 3/4-1 1/2 lbs./treated acre.

In-Furrow Applications: For full season control, apply 1/2 oz./1,000 linear feet of row as an in-furrow spray in 5-10 gals. of water at planting. Position the spray so the fungicide is mixed with the soil covering the seed. Avoid spraying the seed directly with the spray solution or crop injury may occur. Use sufficient water or liquid fertilizer to

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provide uniform coverage. Use the table below to determine the amount of Ridomil 50W needed per acre based on row spacing. For early to mid season control, apply 2/10-3/10 oz./1,000 linear feet of row.

Suggested Rates Per Acre According to Row Spacing

Row Spacing	Linear Feet of Soybean Row Per Acre	Ounces of Ridomil 50W Needed Per Acre		
		Rate Desired	2/10	3/10
38 in.	13,756	2	4	7 1/2
36 in.	14,520	2 1/4	4 1/2	8
30 in.	17,424	2 3/4	5 1/2	9 1/2
24 in.	21,780	3 1/4	6 1/2	12
20 in.	26,136	4	8	14

Note: Ridomil 50W is specific for Pythium and Phytophthora and will not control other diseases that may attack soybeans.

Stone Fruits*, Walnuts and Almonds

*Including apricots, cherries (sweet, sour), nectarines, peaches, plums (Chickasaw, Damson, Japanese), prunes.

Use of Ridomil 50W will aid in the control of crown, collar and root rot caused by Phytophthora spp. when used in conjunction with good cultural practices and rootstocks that are most tolerant to the disease. Ridomil 50W applications should be made before symptoms appear, especially in areas favorable for disease development. Ridomil 2E will not revitalize trees showing moderate to severe disease symptoms.

On new plantings, make the first application of Ridomil 50W two weeks after planting. Additional applications should be made at 2-3 month intervals or during periods most favorable for root, crown or collar rot development.

For established plantings, the application should be made in the spring before the plants start growth. Additional applications should be made at 2-3 month intervals or to coincide with periods most favorable for root, crown or collar rot development.

Apply 8 lbs./treated acre (3 oz./1,000 sq. ft.) in sufficient carrier to obtain thorough coverage of the soil under the canopy of the trees. Sufficient surface area should be treated in nurseries to cover the root zone of the plants. Up to three applications can be made per year. For banded applications, use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. Soil

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surface sprays of Ridomil 50W will not be effective until the fungicide is moved into the root zone by rainfall or irrigation.

Precautions: (1) Do not dip the roots of trees in Ridomil 50W solutions, spray the roots or concentrate it around the tree trunks or injury may occur. (2) Do not apply it to trees under stress. (3) For intense plantings (2-3 times the normal planting rate) make applications on a per area basis, i.e., per acre or 1,000 sq. ft. Do not calculate the amount of Ridomil 50W on a per tree basis. (4) In California, do not apply Ridomil 50W to newly planted trees within 90 days of planting.

Notes: To avoid possible illegal residues, (1) Do not graze livestock in treated areas, and (2) Do not graze or feed cover crops grown in treated orchards.

Strawberries

Ridomil 50W provides control of red stele (Phytophthora fragariae), vascular collapse (P. cactorum) and leather rot (P. cactorum) when used as directed. Applications may be made using ground application equipment.

New Plantings: Apply Ridomil 50W at 2 lbs./treated acre in sufficient water to move the fungicide into the root zone of the plants. Make one application after transplanting followed by an additional application 30 days before the beginning of harvest. A third application may be made during the harvest season, depending on environmental conditions and disease pressure. For banded applications, use the formula in the General Information section of this label to determine the amount of Ridomil 50W needed per acre.

Established Plantings: Apply Ridomil 50W at 2 lbs./treated acre in sufficient water to move the fungicide into the root zone of the plants. Make one application in the spring after the ground thaws and before first bloom. A second application may be applied after harvest in the fall. For supplemental control of leather rot, an application may be made during the harvest season. For banded applications, use the formula in the General Information section of this label to determine the amount of Ridomil 50W needed per acre.

Notes: (1) To avoid possible illegal residues, do not use more than a total of 6 lbs. of Ridomil 50W/treated acre/year. (2) For low annual rainfall areas, a surface application of Ridomil 50W needs to be moved into the root zone by rainfall, overhead irrigation, or mechanical incorporation.

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Sugar Beets

Ridomil 50W will provide control of diseases caused by Pythium spp. Applications may be made preplant incorporated or as a surface spray at planting.

Preplant Incorporated Application: Apply 2-4 lbs./treated acre as a broadcast soil application and incorporate in the top two inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre.

Surface Application: Apply 2-4 lbs./treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. If natural rainfall is not expected before the seeds begin germinating, Ridomil 50W should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2-1 inch sprinkler irrigation.

Note: Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants.

Tobacco

Ridomil 50W is a soil-applied systemic fungicide for use in the field before transplanting for control of black shank (Phytophthora parasitica, var. Nicotianae) and blue mold (Peronospora tabacina) on all types of tobacco. Ridomil 50W may also be applied in tobacco plant beds for control of blue mold and damping-off caused by Pythium spp. For control of anthracnose and other tobacco diseases, use fungicides that control those diseases.

Tobacco Plant Bed

For control of blue mold and damping-off caused by Pythium spp., apply Ridomil 50W only as a preplant broadcast soil application at the rate of 1 lb./treated acre in 50 gals. of water or liquid fertilizer (1/2 oz./150 sq. yds. of bed in 2 gals. of water or liquid fertilizer). Apply before or at the time of seeding to the surface of the plant bed and lightly incorporate. In Pennsylvania, use 2 lbs./treated acre (1 oz./150 sq. yds. of bed in 2 gals. of water).

Notes: (1) Do not use Ridomil 50W for disease control in greenhouse crops. (2) Do not dip plants in solutions containing Ridomil 50W, or crop injury may occur.

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Field Planted Tobacco

Blue Mold: Apply Ridomil 50W as a broadcast soil application and incorporate in the top 2-4 inches of soil before forming beds. For flue-cured tobacco, use 1-2 lbs./treated acre, depending on disease pressure and length of control desired. Under low disease pressure or for early season control, use 1 lb./treated acre. For burley and other tobacco types, use 2 lbs./treated acre.

For prolonged control of blue mold in field planted tobacco, make a supplemental application of 1 lb./acre of crop as a soil application at lay-by or the last cultivation. Position the nozzles so that the spray is deposited under the plants and is covered by soil by the cultivator. Do not make this application if more than 2 lbs./A of Ridomil 50W were applied at transplanting or if no Ridomil 50W was applied at transplanting.

Note: For best control of blue mold, use Ridomil 50W in the plant bed and follow with an application in the field prior to transplanting. Do not use Ridomil 50W in transplant water or in foliar applications on field tobacco because of the potential for the development of resistance in the blue mold fungus, crop injury or potential excessive residues in the crop.

Black Shank: Use Ridomil 50W as a broadcast soil application and incorporate in the top 2-4 inches of soil before forming beds. Apply Ridomil 50W using conventional ground application equipment in sufficient water to provide uniform coverage. Use the table below to determine the amount of Ridomil 50W needed per acre depending on the black shank severity.

Type of Tobacco	Disease Level in Field	Rate of Ridomil 50W Per Acre
Flue-Cured	Low to moderate (less than 6% disease)	2 lbs.
	High (more than 6% disease)	4 lbs.*
Burley and Other**	Low to moderate (less than 6% disease)	4 lbs.
	High (more than 6% disease)	6 lbs.

*Florida and Georgia - Use 6 lbs./treated acre of Ridomil 50W in fields with heavy black shank levels (greater than 6%).

**Pennsylvania - Do not use Ridomil 50W for black shank control.

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For prolonged control of black shank in field planted tobacco, one of the following is recommended: (1) Make a supplemental application at 1 lb./A of crop as a soil application at the last cultivation. Position the nozzles so that the spray is deposited under the plants and is covered with soil by the cultivator. Do not make this application if more than 2 lbs./A of Ridomil 50W was applied at transplanting; or (2) Apply Ridomil 50W at 2 lbs./A just prior to transplanting followed by a second application of 2 lbs./A at the first cultivation followed by a third application of 2 lbs./A at lay-by or the last cultivation.

Precautions: (1) For best results against black shank, use Ridomil 50W with tobacco varieties that have some resistance to black shank and use crop rotation. In fields where there is a history of severe black shank, use the highest rate and plant a variety that is resistant to the race of Phytophthora present in the field. (Burley L8 hybrids are only resistant to Phytophthora Race O.) (2) Ridomil 50W is not recommended for use in high black shank areas on highly susceptible flue-cured varieties such as Hicks, Virginia Gold or White Gold. (3) Failure to adequately control nematodes in fields treated with Ridomil 50W may result in poor control of black shank.

No-till Tobacco: Apply Ridomil 50W to the field before transplanting for control of black shank and blue mold on all types of tobacco. Apply 1-2 lbs./treated acre as a preplant, broadcast or banded soil application. For banded applications, use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre. A supplemental lay-by application may be made 30-35 days after planting at 1 lb./A. Do not make the lay-by application if more than 2 lbs./A of Ridomil 50W were applied at transplanting or if no Ridomil 50W was applied at transplanting.

Tomatoes

Soil applications of Ridomil 50W at planting will provide control of damping-off caused by Pythium spp. Soil applications applied 4-12 weeks before harvest under the vines will control fruit and root rot caused by Pythium spp. and Phytophthora spp.

Damping-Off (Pythium spp.): Apply 2-4 lbs./treated acre in sufficient water to provide uniform coverage at the time of planting. If rainfall is not expected before the seeds start to germinate, Ridomil 50W should be incorporated mechanically before planting, during the planting operation, or be moved into the seed zone after planting with 1/2 - 1 inch sprinkler irrigation. For banded applications, a 7-inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of Ridomil 50W needed per acre.

Root and Fruit Rot (Phytophthora spp and Pythium spp.):

To aid in the control of root and fruit rot, one or two additional applications may be made during the growing season, depending on the severity of the conditions for disease infection.

Apply 2 lbs./treated acre beginning 4-6 weeks after planting. A second application may be made as needed up to 4 weeks before harvest, but before the last irrigation. Ridomil may be applied as a directed soil surface spray under the vines or it may be injected into the beds. If less than the full bed is treated, use the formula in the General Information section to determine the amount of Ridomil 50W needed per acre. If Ridomil is injected into the beds, base calculations on a 7-inch band.

If soil surface sprays are used, the Ridomil 50W must be incorporated into the soil with 1/2 - 1 inch of rainfall or sprinkler irrigation.

Notes: To avoid possible illegal residues, (1) Do not apply more than 6 lbs./treated acre/season, and (2) Do not apply within 7 days of harvest. (3) Do not use Ridomil 50W for disease control in greenhouse crops or vegetable bedding plants.

Replanting

If replanting is necessary, additional applications of Ridomil may be made provided that the total amount of metalaxyl applied does not exceed the maximum allowed for the specific crop.

Rotation (Plantback) Restrictions

Do not plant any crop which is not registered for use with metalaxyl in metalaxyl-treated soil for a period of 12 months, with the exception of wheat, barley and oats. See list below.

<u>Rotation Crop</u>	<u>Planting Time From Last Ridomil 50W Application</u>
Alfalfa	-0- days
Almonds	-0- days
Apples	-0- days
Asparagus	-0- days
Avocados	-0- days
Blueberries	-0- days
Broccoli	-0- days
Cabbage	-0- days
Cauliflower	-0- days
Chinese Broccoli (gai lon, white flowering broccoli)	-0- days
Chinese Cabbage (tight-heading varieties only)	-0- days
Citrus	-0- days
Cucurbit Vegetables	-0- days
Deciduous Fruits and Nuts*	-0- days
Eggplant	-0- days
Hops	-0- days
Head Lettuce	-0- days
Legume Vegetables	-0- days
Onions	-0- days
Papayas	-0- days
Peanuts	-0- days
Peppers	-0- days
Pineapples	-0- days
Potatoes	-0- days
Raspberries	-0- days
Root and Tuber Vegetables	-0- days
Soybeans	-0- days
Spinach	-0- days
Stone Fruits	-0- days
Strawberries	-0- days
Sugar Beets	-0- days
Tobacco	-0- days
Tomatoes	-0- days
Walnuts	-0- days
Wheat/Barley/Oats	14 days
Corn	12 months
Crops <u>Not Intended</u> for Food or Feed	-0- days
All Other Crops <u>Intended</u> for Food or Feed	12 months

*These crops and other perennial crops may be planted immediately following last application of Ridomil 50W provided they will not bear harvestable fruit within 12 months.

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Storage and Disposal

Storage - Store in a cool, dry place. Do not store this product under wet conditions. Handle outer container carefully to avoid breakage of inner soluble bag.

Pesticide Disposal

Do not contaminate water, food or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

Container Disposal

Do not reuse outer container. Dispose of empty outer container in a sanitary landfill or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372 day or night.

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Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING/AVISO

Causes substantial but temporary eye injury. Harmful if inhaled or absorbed through skin. Do not get in eyes, on skin or clothing, or inhale dust or spray mist.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Get medical attention.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If inhaled: Move victim to fresh air.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation occurs.

Notes to Physician: If ingested, induce emesis or lavage stomach. Treat symptomatically.

Personal Protective Equipment:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements:

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

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Apply only as specified on this label. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

Ridomil® trademark of Ciba-Geigy for metalaxyl
U. S. Patent No. 4,151,299

Terraclor® trademark of UniRoyal, Inc. for PCNB

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