11/15/2012



# United States Environmental Protection Agency WASHINGTON, DC 20460

CHEMICAL SAFETY AND POLLUTION PREVENTION

Tammy Tyler Regulatory Product Manager Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, NC 27419-8300

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Product Name:

Ridomil Gold Copper

EPA Reg. No.:

100-804

Subject:

Your amendment dated May 10, 2012

OPP Decision Number: 462375

Dear Dr. Tyler:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable.

One copy of the label stamped "Accepted" is enclosed for your records. Please submit one copy of the final printed label before the product is released for shipment.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at westin.robert@epa.gov.

Sincerely,

Mary L. Waller

Product Manager (21)

Fungicide Branch

Registration Division (7504P)

Mary J. Waller

Enclosure:

# Ridomil Gold® Copper

# **Fungicide**

For the control of certain diseases in listed fruits and vegetables

Active Ingredients:

Mefenoxam*	5.0%
Copper Hydroxide**: (Cu(OH)2)	60.0%
Other Ingredients:	35.0%
Total:	100.0%

<sup>\*</sup>CAS No. 70630-17-0

Ridomil Gold Copper is a wettable powder packaged in a water-soluble bag.

This outer protective container contains Ridomil Gold Copper in an inner water-soluble bag. Entire inner bag and contents dissolve in water. After opening outer container, immediately dump 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.

KEEP OUT OF REACH OF CHILDREN.

# DANGER/PELIGRO

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 and directions for use on container label.

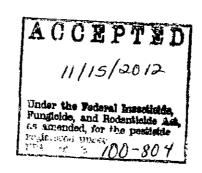
EPA Reg. No. 100-804

EPA Est. 67545-AZ-1

SCP 804B-L2K 0211

[Product ID 52561]

5 pounds Net Weight



<sup>\*\*</sup>CAS No. 20427-59-2 Metallic Copper equivalent......39.1%

	FIRST AID
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>
	Call a poison control center or doctor for treatment advice.
If swallowed	Call a poison control center or doctor immediately for treatment advice.      November of a global of water if the to evaluate.
	Have person sip a glass of water if able to swallow.
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>
	Do not give anything by mouth to an unconscious person.
If inhaled	Move person to fresh air.
	If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
	Call a poison control center or doctor for further treatment advice.
If on skin or	Take off contaminated clothing.
clothing	Rinse skin immediately with plenty of water for 15-20 minutes.
J	Call a poison control center or doctor for treatment advice.
Have the produ	uct container or label with you when calling a poison control center or
•	g for treatment.
<u></u> . , <u></u> <u></u>	NOTE TO PHYSICIAN
Probab	le mucosal damage may contraindicate the use of gastric lavage.
	HOT LINE NUMBER
	our Medical Emergency Assistance (Human or Animal) or Chemical
	Emergency Assistance (Spill, Leak, Fire, or Accident), Call

# **PRECAUTIONARY STATEMENTS**

#### Hazards to Humans and Domestic Animals

#### DANGER/PELIGRO

1-800-888-8372

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear such as goggles, face shield, or safety glasses. Harmful if swallowed, inhaled, or absorbed through skin. Avoid breathing dust or spray mistages. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after, handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

# Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

# Mixers, loaders, applicators, and other handlers must wear the following:

- Long-sleeved shirt
- Long pants
- Shoes plus socks
- Chemical-resistant gloves
- Protective eyewear such as goggles, face shield, or safety glasses

## **User Safety Requirements**

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

# **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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash, thoroughly and change into clean clothing.
- Wash the outside of gloves before removing.

#### **Environmental Hazards**

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

## **Groundwater Advisory Statement**

Mefenoxam has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

# Surface Water Label Advisory

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.

# 6/24

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE**: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.



# **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 State or Tribal 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 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear such as goggles, face shield, or safety glasses



#### PRODUCT INFORMATION AND RESTRICTIONS

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

Ridomil Gold Copper is a foliar fungicide containing 5% Ridomil Gold active ingredient and 60% of the active ingredient copper hydroxide. Ridomil Gold is a systemic fungicide for use on selected crops to control diseases caused by members of the Phycomycete family of fungi. Copper is effective against a wide range of fungal pathogens.

Note: Ridomil Gold Copper is a systemic fungicide having a specific mode of action and could be subject to development of insensitive strains of fungi. Development of insensitivity cannot be predicted. If treatment is not effective following the use of Ridomil Gold Copper as recommended, an insensitive strain of fungi may be present. If the treatment is ineffective due to the presence of a Ridomil Gold insensitive strain of fungi, neither Ridomil Gold Copper 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 in your particular crop and disease control situation.

Maximum usage when applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum seasonal total for the active ingredient as stated on the label of the product containing the lowest seasonal total on that crop.

Do not make applications when weather conditions favor drift from target area. Avoid spray overlap as crop injury may result.

THIS LABEL IS FOR FIELD USE ONLY AND *NOT* FOR USE ON TRANSPLANT TRAYS, GREENHOUSES, LATH HOUSES, FLOAT HOUSES, HYDROPONIC PRODUCTION, OR IN BEDDING PLANT STRUCTURES.

#### MIXING INSTRUCTIONS

After opening outer container, immediately dump 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.

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 dissolve the bag and disperse the product. Maintain maximum 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.

Amount of water needed per acre will vary according to the amount of plant growth. For dilute ground application, use 20-150 gal. of water per acre. For aerial application, use 3-10 gal. of water per acre. To minimize the potential of drift from target area, application at wind speeds greater than 10 mph is not recommended.

Precautions: (1) Soluble bags of Ridomil Gold Copper must be dissolved completely, and the product must be uniformly dispersed in the mix water, before any other tank mix partner, including micronutrients, or other dry or liquid fertilizers are added to the solution. Boron, especially in the form of a micronutrient additive, such as Solubor®, etc., or as a natural component of the mix water, may prevent water-soluble bags from dissolving. (2) A minimum of 5 gal. of water per acre must be used in the mix tank. (3) Do not let spray mixture stand overnight in the spray tank. (4) Rinse spray tank at the end of the day.

Ridomil Gold Copper Alone: Add ¼ 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 Gold Copper into the tank all at once. Continue agitation while adding the remainder of water and during application to maintain a uniform suspension.

BEFORE TANK MIXING RIDOMIL GOLD COPPER 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 GOLD COPPER.

When tank mixing, apply in accordance with the most restrictive of label limitations and precautions. No label dosage rates may be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Ridomil Gold Copper + Tank Mixtures: Add ¼ 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 Gold Copper into the tank all at once. After the water-soluble bags have dissolved and the products have dispersed uniformly into the mix water.

continue to fill the tank with water. Then add the desired amount of the other products recommended for tank mixture. Continue agitation while adding the remainder of the water and during application to maintain a uniform suspension.

# **Application Through Irrigation Systems**

Ridomil Gold Copper, alone or in combination with other pesticides which are registered for application through irrigation systems, may be applied through irrigation systems.

Apply this product only through center pivot, solid set, hand move, or moving wheel 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 non-uniform 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 person responsible for its operation, shall shut the system down and make necessary adjustments, should the need arise.

Precaution: Corrosion of aluminum, alloy, and carbon-based steel irrigation systems may result from the use of copper-based fungicides. After using Ridomil Gold Copper, immediately flush with water (within one hour) all irrigation systems and associated piping in a manner which will not wash the product from the foliage and reduce disease control.

#### Specific Instructions for Public Water Systems

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must contain a functional, normally closed, solenoidoperated valve located on the intake side of the injection pump and connected to the

11/24

system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, 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.

#### **Posting Requirements**

Posting of areas to be chemigated is required when (1) any part of a treated area is within 300 ft. of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or (2) when the chemigated area is open to the public.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted for re-entry after 48 hours. Signs must be removed within 3 days after end of application and any restricted entry interval, and before agriculture worker entry is permitted.

All words shall consist of letters at least 2½ inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

# **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, quickclosing 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.
- 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.

# **Application Instructions**

Ridomil Gold Copper must be applied as the schedule specifies in the specific crop use directions, not according to the irrigation schedule. If irrigation schedules are used, ground or aerial applications must supplement chemigation applications to achieve adequate disease control.

Ridomil Gold Copper has not been sufficiently tested to assure consistent product performance for all labeled uses when applied through chemigation systems. The following calibration and application techniques are provided for user reference. Check with state and local regulatory agencies for potential use restrictions before applying.

# **Center Pivot Irrigation Equipment**

**Note:** (1) Use only with drive systems which provide uniform distribution. (2) Do not use end guns when chemigating Ridomil Gold Copper through center pivot irrigation systems because of non-uniform application. (3) Plug the first nozzle closest to well head to protect water source.

- 1. Determine the size of the area to be treated.
- 2. Determine the time required to apply 1/4-1/2 inch of water over the area to be treated when the system and injection equipment is operated at normal pressures as 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 Gold Copper required to treat the area covered by the irrigation system.
- 5. Add the required number of Ridomil Gold Copper soluble bags and sufficient water to meet the injection time requirements to the solution tank. (See **Mixing Instructions** section of this label.)
- 6. Make sure the system is fully charged with water before starting injection of the Ridomil Gold Copper solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- 7. Maintain constant solution tank agitation during the injection period.
- 8. Stop injection equipment after treatment is completed. Continue to operate the system until the Ridomil Gold Copper solution has cleared the sprinkler head.
- 9. After using Ridomil Gold Copper, immediately flush with water (within one hour) all irrigation systems and associated piping in a manner which will not wash the product from the foliage and reduce disease control.

# Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- 1. Determine the acreage covered by the sprinklers.
- 2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 30-minute time interval.

- 3. Determine the amount of Ridomil Gold Copper required to treat the area covered by the irrigation system.
- Add the required number of Ridomil Gold Copper 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 Gold Copper at the end of the irrigation cycle or as a separate application to maximize retention of the fungicide by the foliage.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Ridomil Gold Copper solution has cleared the last sprinkler head.
- 8. After using Ridomil Gold Copper, immediately flush with water (within one hour) all irrigation systems and associated piping in a manner which will not wash the product from the foliage and reduce disease control.

#### SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

#### **Droplet Size**

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

## Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

#### Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

# Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

#### Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

## Additional requirements for aerial applications:

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

## Additional requirement for ground boom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

# CANEBERRY (BLACKBERRIES AND RASPBERRIES) SUBGROUP\*

\*Blackberry subgroup includes: Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, and zarzamora.

Ridomil Gold Copper, when used as a foliar spray in a preventive disease control program, provides control of downy mildew of berries.

Apply 1 pack (5 lb. product)/2.5 acres (0.1 lb. a.i./A of mefenoxam) of Ridomil Gold Copper. Begin applications when conditions are favorable for disease, but before infection, and again in 7 days.

Notes: (1) Ridomil Gold Copper may be applied the day of harvest (0-day PHI). (2) Do not make more than 2 applications of a Ridomil Gold prepack (Ridomil Gold Copper of Ridomil Gold Bravo®) per crop. (3) Do not apply with an adjuvant. (4) Do not exceed the equivalent of 1.8 lb. a.i./A per crop of soil-applied, and 0.2 lb. a.i./A per crop fcliar.

applied mefenoxam-containing products for a maximum seasonal application rate of 2.0 lb. a.i./A.

#### **CARROTS AND RADISHES**

Ridomil Gold Copper will control foliar diseases caused by Oomycete fungi, including cavity spot on carrots and white rust on radishes. For season-long control of these diseases, make a preplant or at-planting application of Ridomil Gold® SL at 1-2 pt./acre (0.50-1 lb. a.i./acre). (See the **Root and Tuber Vegetable** section of the Ridomil Gold SL label.)

Apply 1 pack (5 lb. product)/2.5 acres of Ridomil Gold Copper foliarly beginning 40-50 days after the Ridomil Gold SL at-planting application. Make 2-4 applications of Ridomil Gold Copper on a 14-day schedule, depending on disease development.

**Notes:** (1) Do not apply Ridomil Gold Copper within 7 days of harvest (7-day PHI). (2) You may make up to 4 applications of Ridomil Gold Copper per crop. (3) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

#### **CUCURBIT VEGETABLES**

Ridomil Gold Copper, when used as a foliar spray in a preventive disease control program, provides control of downy mildew of cucurbit vegetables.

Apply 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres. Begin applications when conditions are favorable for disease, but before infection, and continue at 14-day intervals until the threat of disease is over. The full rate of a protectant fungicide should be applied between Ridomil Gold Copper applications. Avoid late season applications when plants reach full maturity or begin senescence.

**Notes:** (1) Do not apply Ridomil Gold Copper within 5 days of harvest (5-day PHI). (2) You may make up to 4 applications of a Ridomil Gold prepack (Ridomil Gold Copper or Ridomil Gold Bravo) per crop. (3) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

#### **GRAPES**

Use Ridomil Gold Copper as a foliar, post-bloom application for control of downy mildew of grapes caused by *Plasmopora viticola*.

Apply 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres. Make up to 4 applications beginning before bloom, but no closer than a 3-day interval; do not make an application within 42 days of harvest. For late season downy mildew control, apply other registered fungicides.

Notes: (1) Do not apply within 42 days of harvest (42-day PHI). (2) You may make up to 4 applications of Ridomil Gold Copper per crop. (3) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year. (4) Do not use on copper sensitive varieties (see local state and extension recommendations for varietal selection).

#### **LEGUME VEGETABLES - SUCCULENT SHELLED BEANS\***

\*Includes bean, succulent shelled (lima bean, broad bean (succulent), blackeyed pea, cowpea, and southern pea).

FOR USE EAST OF THE MISSISSIPPI RIVER ONLY. Use Ridomil Gold Copper as a foliar application for control of downy mildew of succulent shelled beans. Apply 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres. Begin applications at the onset of disease and continue on a seven day schedule. Make up to four applications per season.

Notes: (1) Do not apply within three days of harvest (3 day PHI). (2) You may make up to four applications of Ridomil Gold Copper per crop. (3) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

#### ONIONS - DRY BULB\*, GREEN\*\*, AND ONIONS GROWN FOR SEED

\*Includes garlic, onions (dry bulb), and shallots (dry bulb), as well as great-headed garlic, serpent garlic, lily bulb, Chinese onion bulb, pearl onion, and potato onion bulb.

\*\*Includes green onions, leeks, spring onions or scallions, Japanese bunching onions, green shallots, or green eschalots, as well as chive (fresh leaves), Chinese chive (fresh leaves), Hosta elegans, Fritillaria (leaves), kurrat, lady's leek, Beltsville bunching onions, onion (fresh), macrostem onion, tree tops onion, Welsh onion (tops), and shallot (fresh) leaves).

Ridomil Gold Copper provides effective control of downy mildew caused by Peronospora destructor when used as a foliar spray in a preventive disease control, 3, program. Apply 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres in sufficient water to obtain thorough coverage. Begin applications when conditions are favorable for disease, but before infection, and continue at 14-day intervals until the threat of disease is over. Use a suitable spreader-sticker at rates recommended on the product label.

Notes: (1) Bulb onions: Do not exceed the equivalent of 1.0 lb. a.i./A per crop of soilapplied and 0.4 lb. a.i./A per crop of foliar-applied mefenoxam-containing products. (2) Green onions: Do not exceed the equivalent of 1.0 lb. a.i./A per crop of soil-applied and 0.3 lb. a.i./A per crop of foliar-applied mefenoxam-containing products. (3) Bulb onions: Do not apply within 10 days of harvest (10-day PHI). (4) Green onions: Do not apply within 7 days of harvest (7-day PHI).

#### **PEPPERS**

For control of *Pythium* spp. and *Phytophthora capsici*, follow the treatment scheme below:

For optimal results, apply Ridomil Gold SL to the soil at planting at 1 pt./acre (0.50 lb. a.i./acre) followed by one supplemental application of Ridomil Gold SL at 1 pt./acre (0.50 lb. a.i./acre) 30 days following the soil application followed by foliar applications of Ridomil Gold Copper at 1 pack (5 lb. product)/2.5 acres. Make 3-4 applications of Ridomil Gold Copper at 10- to 14-day intervals.

Notes: (1) Do not apply Ridomil Gold Copper within 7 days of harvest (7-day PHI). (2) You may make up to 4 applications of Ridomil Gold Copper per crop. (3) Do not apply more than a total of 1.5 lb. Ridomil Gold active ingredient per acre per crop. (4) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

#### **POTATOES**

Apply Ridomil Gold Copper as a foliar fungicide in a preventive disease control program for control of late blight caused by *Phytophthora infestans*, Pythium leak caused by *Pythium* spp., and pink rot caused by *Phytophthora erythroseptica*. Make applications of Ridomil Gold Copper in sufficient water to obtain thorough coverage for ground applications and in a **minimum of 5 gal**. of water per acre for aerial applications.

Late Blight: Apply a tank mix of 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres plus 0.80 lb. a.i./acre of maneb, mancozeb, metiram, or chlorothalonil. Begin preventive applications early in the season when conditions are favorable for disease (before infection), but no later than when the plant foliage meets within the row. Make up to 3 applications of the Ridomil Gold Copper tank mixture at 14-day intervals. The full rate of a protectant fungicide should be applied between Ridomil Gold Copper.

applications. Following the 3 Ridomil Gold Copper applications, apply the full rate of a protectant fungicide on a weekly schedule through the remainder of the season.

Storage Rots: Pythium Leak (caused by *Pythium* spp.) and Pink Rot (caused by *Phytophthora erythroseptica*): For effective control of these storage rots, Ridomil Gold Copper should be used in conjunction with other management practices such as crop rotation. Apply 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres. Make the first application at flowering and another application 14 days later. If the field has a history of tuber disease problems, make a third application 14 days after the second application.

**Note:** If applications of Ridomil Gold Copper are being made for late blight control that correspond to the timing of applications for storage rot control, additional applications for storage rot control are not needed.

Notes: (1) Do not apply Ridomil Gold Copper within 14 days of harvest (14-day PHI). (2) You may make up to 3 applications of a Ridomil Gold prepack (Ridomil Gold Copper, Ridomil Gold Bravo, or Ridomil Gold MZ) per crop. (3) If conditions for late blight development are still favorable after making 3 applications of Ridomil Gold Copper, use other fungicides registered for late blight control in potatoes. (4) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

## **SNAP BEANS**

Use Ridomil Gold Copper as a foliar application for control of downy mildew caused by *Phytophthora phaseoli*, Pythium pod rot, and Pythium cottony leak. Apply 1 pack (5 lb. product)/2.5 acres (0.1 lb. a.i./A of mefenoxam) of Ridomil Gold Copper. Begin applications at the onset of disease and continue on a 7-day schedule. Do not make more than 2 application per season.

**Notes:** (1) Do not apply Ridomil Gold Copper within 7 days prior to harvest (7-day PHI). (2) Do not apply more than 0.4 lb. a.i. mefenoxam/A of Ridomil Gold Copper per season. (3) Do not use an adjuvant. (4) Do not exceed the equivalent of 0.5 lb. a.i./A per crop of soil-applied mefenoxam-containing products at planting and 0.2 lb. a.i./A per crop of foliar-applied mefenoxam-containing products.

## SPINACH

Ridomil Gold Copper will control white rust and downy mildew on spinach when applied foliarly following an at-planting application of Ridomil Gold SL at 1-2 pt./acre (0.50-1)-16-2 a.i./acre).

Apply 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres 21 days after the Ridomil Gold SL at-planting application or immediately after each repeated cutting. Make 1 or 2 applications of Ridomil Gold Copper at 14-day intervals, depending on cultural practices. Avoid late-season applications when plants reach full maturity or begin senescence.

Notes: (1) Make up to 2 applications of Ridomil Gold Copper per crop. (2) Do not use an adjuvant. (3) If Ridomil Gold Copper use is planned, apply Ridomil Gold SL either preplant or at planting. Do not make supplemental applications of Ridomil Gold SL. (4) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year. (5) Do not exceed the equivalent of 1.0 lb.a.i./A per crop of soil-applied mefenoxam-containing products at planting and 0.25 lb. a.i./A of foliar-applied mefenoxam-containing products. (6) Do not apply Ridomil Gold Copper within 3 days prior to harvest (3-day PHI).

#### **TOMATOES**

Foliar applications of Ridomil Gold Copper will control Phytophthora fruit rot (such as buckeye rot), and late blight when applied on a regular schedule. Make applications of Ridomil Gold Copper in sufficient water to obtain thorough coverage for ground applications and in a minimum of 5 gal. of water per acre for aerial applications.

Processing Tomatoes: Apply a tank mix of 1 pack of Ridomil Gold Copper (5 lb. product)/3.7 acres plus 0.80 lb. a.i./acre of maneb or mancozeb. Begin preventive applications early in the season when conditions are favorable for disease (before infection). Make up to 3 applications of the Ridomil Gold Copper tank mixture at 14-day intervals. The full rate of a protectant fungicide should be applied between Ridomil Gold Copper applications. Following the 3 Ridomil Gold Copper applications, apply the full rate of a protectant fungicide on a weekly schedule through the remainder of the season.

Fresh-Market Tomatoes: Apply a tank mix of 1 pack of Ridomil Gold Copper (5 lb. product)/2.5 acres plus 0.80 lb. a.i./acre of maneb or mancozeb. Begin preventive applications early in the season when conditions are favorable for disease (before infection). Make up to 3 applications of the Ridomil Gold Copper tank mixture at 14-day intervals. The full rate of a protectant fungicide should be applied between Ridomil Gold Copper applications. Following the 3 Ridomil Gold Copper applications, apply the full rate of a protectant fungicide on a weekly schedule through the remainder of the of a season.

Notes: (1) Do not apply Ridomil Gold Copper within 14 days of harvest (14-day PHI). (2) Up to 3 applications of Ridomil Gold Copper per crop may be made. (3) If conditions for late blight development are still favorable after making 3 applications of Ridomil Gold Copper, use other fungicides registered for late blight control in tomatoes. (4) If other 3.3

formulations containing the Ridomil Gold active ingredient are applied at any time throughout the season, do not exceed a total of 1.5 lb. a.i./acre per crop. (5) If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

#### TROPICAL FRUIT

Black Sapote, Star Apple, Canistel, Mamey Sapote, Mango, Sapodilla

Mango and Mamey Sapote: Not for use in California.

Use Ridomil Gold Copper to aid in the control of Phytophthora blight caused by *Phytophthora palmivora* in outdoor nurseries, new plantings in the field and on bearing plants.

Apply 1 pack of Ridomil Gold Copper (5 lb. product)/1.7 to 2.5 acres (2.0 to 2.94 lb. product/acre) as a trunk or foliar spray. Direct the spray to the trunk of the plant or to the fruit column on the trunk. Apply until the point of runoff. When applying to a fruit column use a minimum of 100 gallons of water per acre. Make up to 4 applications at approximately 30-day intervals. Do not apply within one day of harvest (1-day PHI).

Do not apply Ridomil Gold Copper if Ridomil Gold SL is used as a soil drench.

If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

#### Papaya (Not for use in California)

Use Ridomil Gold Copper to aid in the control of Phytophthora blight caused by *Phytophthora palmivora* in outdoor nurseries, new plantings in the field and on bearing plants. Use this product in conjunction with the Ridomil Gold SL soil program on papaya.

Apply 1 pack of Ridomil Gold Copper (5 lb. product) per 1.7 acres (2.94 lb. product/acre) as a trunk or fruit application. Make a total of four fruit and trunk applications with Ridomil Gold Copper. The first application can be made on the same day as the first soil application (at transplanting or in the spring at root growth flush):

Direct the spray to the trunk of the plant or to the fruit column on the trunk. Apply until the point of runoff. Use 70-120 gallons of water per acre. A spreader/sticker may be added to the spray solution at 8-16 fl. oz./100 gallons to aid in dispersion. Following the initial application, make three additional applications on a 14-day interval. The final application should coincide with the second soil application of Ridomil Gold SL which is made one day before harvest.

Do not apply within one day of harvest (1-day PHI).

If other pesticides containing mefenoxam and/or metalaxyl are also used, the total amount of mefenoxam plus metalaxyl from Ridomil Gold Copper and these other pesticides must not exceed 0.4 lb. a.i./acre/year.

# **ROTATION (PLANTBACK) RESTRICTIONS**

Do not plant any crop which is not registered for use with the Ridomil Gold active ingredients in soil treated with these active ingredients for a period of 12 months, with the exception of cereal grains. See the following list.

Rotational Crop	Planting Time From Last Ridomil Gold Copper Application
Alfalfa (including birdsfoot trefoil), Almonds, Apples, Asparagus, Avocados Blueberries, Broccoli Cabbage, Cauliflower, Chinese Broccoli	
(gai lon, white flowering broccoli), Chinese Cabbage (tight-heading varieties only), Citrus, Cotton, Cranberries, Cucurbit Vegetables	
Deciduous Fruits and Nuts*  Eggplant  Garlic, Ginseng, Grapes	
Hops	
Leafy Vegetables (other than Brassica), Legume Vegetables (beans and peas - succulent and dried)	0 days
Onions (dry bulb and seed only)	
Papaya, Peanuts, Peppers, Pineapples, Potatoes	
Raspberries, Root and Tuber Vegetables	
Soybeans, Spinach, Stone Fruits,	
Strawberries, Sugar Beets	
Tobacco, Tomatoes Walnuts	
	40 days
Cereal Grains (other than corn) Corn	40 days 9 months
Crops Not Intended for Food or Feed	0 days
Other Crops Intended for Food or Feed	12 months
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<sup>\*</sup>These crops and other perennial crops may be planted immediately following lasting application of Ridomil Gold Copper, provided they will not bear harvestable fruit within 12 months.

#### STORAGE AND DISPOSAL

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

## **Pesticide Storage**

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

## **Pesticide Disposal**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

#### **Container Handling**

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay 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.

#### CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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