55146-57

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

JAN - 5 2012

Danielle A. Larochelle Nufarm Americas Inc. 4020 Aerial Center Parkway, Suite 201 Morrisville, NC 27560

SUBJECT: Label Amendment Champ Dry Prill Agricultural Fungicide/Bactericide EPA Reg. No. 55146-57; Decision # 456602 Your Submission Dated September 28, 2011

Dear Ms. Larochelle:

The amended labeling referred to above to respond to EPA's request of September 20, 2011 labeling amendments required by the RED, submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable provided that you make the following labeling changes and submit a final printed label within 30 days with these changes.

- 1. On page 3, in the Agricultural Use Requirements section, line 5; add "(REI)" after "....and restricted-entry interval (REI)...."
- 2. On page 3, in the Agricultural Use Requirement section, delete "(REI)" in the 7th line.
- 3. On page 3, in the Agricultural Use Requirements section, instead of "coveralls" it should read "long sleeved shirt and coveralls" to the PPE section.

If you have any questions regarding this correspondence, contact Rose Kearns of my staff by phone at 703-305-5611 or via email at <u>kearns.rosemary@epa.gov</u> or myself at 703-308-9443 or via email at <u>kish.tony@epa.gov</u>.

Sincerely, hose klarks for

Tony Kish Product Manager (22) Fungicide Branch Registration Division (7505P)

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Enclosure

Champ[®] Dry Prill AGRICULTURAL FUNGICIDE / BACTERICIDE

ACTIVE INGREDIENT:

Copper Hydroxide* (CAS No. 20427-59-2)	
OTHER INGREDIENTS:	
	TOTAL:

*(Metallic Copper Equivalent 37.5%)

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 INSIDE BOOKLET FOR PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 55146-57 EPA EST. NO. _____ MANUFACTURED FOR NUFARM AMERICAS INC. AGT DIVISION 150 HARVESTER DRIVE BURR RIDGE, IL 60527



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ACCEPTED with COMMENTS In EPA Letter Dated

JAN - 5 2012 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

NET CONTENTS

LBS. (____KG)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS -WARNING / AVISO

Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if inhaled. Do not get in eyes, on skin, or on clothing. Avoid breathing dust, vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber, or butyl rubber
- · shoes plus socks
- protective eyewear such as goggles, face shield, or safety glasses.

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 Controls Statement

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. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- · After each day of use, wash in detergent and hot water any personal clothing worn while using this product.

	FIRST AID
IF IN EYES	 Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
IF SWALLOWED	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. 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 CLOTHING	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
	HOT LINE NUMBER container or label with you when calling a poison control center or doctor, or going for treatment. You -877-325-1840 for emergency medical treatment information.

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 wash water or rinsate.

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 (WPS), 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 such as polyvinyl chloride, nitrile rubber, or butyl rubber
- Shoes plus socks
- · Protective eyewear such as safety glasses, goggles, or face shield

For greenhouse uses the REI is 24 hours provided the following conditions are met:

For at least seven days following the application in greenhouses:

- at least one container or station designed specifically for flushing eyes is available in operating condition with the WPS-required decontamination supplies for workers entering the area treated with copper-containing products,
- workers are informed orally, in a manner they can understand:
 - · that residues in the treated area may be highly irritating to their eyes,
 - that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes,
 - that if they do get residues in their eyes, they should immediately flush their eyes with the eye flush container or eye flush station that is located with the decontamination supplies, and
 - how to operate the eye flush container or eye flush station.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR part 170. The Worker Protection Standard (WPS) applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated area until sprays have dried.

FROST INJURY PROTECTION: Bacterial Ice Nucleation Inhibitor: Application of this product made to all crops listed on this label at rates and stages of growth indicated below just prior to anticipated frost conditions will afford control of ice nucleating bacteria (*Pseudomonas Syringae, Erwina Herbicola and Pseudomonas Fluorescens*) and may therefore provide protection against light frost. Use higher rates when bacterial infection is severe. Not recommended in those geographical areas where weather conditions favor severe frost.

GENERAL INSTRUCTIONS

This product can be used with all types of spraying equipment. The volume per acre will differ depending on the specific crop and the equipment used. Use this product as per instructions on this label.

APPLYING SPRAY MIXTURE: The directions given under each crop are for applying dilute spray mixture unless otherwise shown. The amount of this product applied per acre in concentrate and aerial sprays should be the same as the amount applied per acre in dilute sprays. The required amount should be mixed with enough water to thoroughly cover the crop with spray mixture and is to be applied to the point of runoff. The volume of water needed will depend upon the spray equipment used and the size of the crop being sprayed. Read the information below about applying dilute, concentrate, and aerial sprays.

APPLYING DILUTE HIGH-VOLUME SPRAYS: On vegetable crops use 25 to 100 gallons of spray mixture per acre; on fruit and nut trees use 250 to 800 gallons per acre. As much as 1,500 gallons per acre may be needed for large trees.

APPLYING CONCENTRATE GROUND SPRAYS: On vegetable crops use 5 to 20 gallons of spray mixture per acre; on fruit and nut trees use 25 to 250 gallons per acre.

APPLYING AERIAL SPRAYS: Use 3 to 30 gallons per acre.

NOTES:

- The Pre-Harvest Interval (PHI) for this product is 0-day unless otherwise noted.
- This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with metal surfaces. **DO NOT** spray on cars, houses, lawn furniture, etc.
- DO NOT tank mix this product with Aliette® fungicide unless appropriate precautions have been taken to buffer the spray solution or severe phytotoxicity may result.
- This product should not be applied in a spray solution having a pH of less than 6.5 as phytotoxicity may occur.
- Environmental conditions such as extended periods of wet weather, acid rain, etc. which alter the pH of the leaf surface may affect the performance of this product resulting in possible phytotoxicity or loss of effectiveness.
- Reduced effect on pests or crop injury may result from tank mixing this product especially where several products are involved. Unless recommended on this label or by state/local expert, or the user has small scale direct experience, tank mixing should not be undertaken.
- Agricultural chemicals may be reactive with soft metals and some synthetic materials such as plastics, rubbers, etc.
 When working with equipment containing these materials the equipment must be thoroughly flushed with clean water after each day's use.

CHEMIGATION

Apply this product only through center pivot, motorized lateral move, end tow, traveler, big gun, plastic solid set, or plastic hand move sprinkler irrigation systems that **DO NOT** contain aluminum components. **DO NOT** apply this product through any other type of irrigation system unless specifically set forth above or as may be specified in the future as additional systems not containing aluminum components come into use. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. 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. 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. 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. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow 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 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. For nonpublic water sprinkler chemigation systems, the system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. For non-public water sprinkler chemigation systems, the irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. DO NOT apply when wind speed favors drift beyond the area intended for treatment.

It is recommended that the pesticide supply tank be equipped with a means for continuous agitation either by recirculation or a mechanical agitator. Charge the supply tank with the appropriate amount of water and add the pesticide slowly followed by any sticker-spreaders, insecticides, nutrients, etc. Observe all cautions and limitations on the label of all products used in the mixtures. For fixed position irrigation systems such as center pivot, big gun, etc., the pesticide should be applied towards the end of the irrigation period. Exact timing will depend on the desired pesticide application rate and calibration of the system. For moving systems, the pesticide should be applied continuously. In all cases, thorough coverage of the crop should be achieved.

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, inpatient 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 areas is open to the public such as golf courses or retail greenhouses.

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 until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2-1/2 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.

NOTE: IRRIGATION SYSTEMS AND ASSOCIATED PIPING SHOULD BE THOROUGHLY FLUSHED WITH CLEAN WATER FOLLOWING APPLICATION OF COPPER BASED FUNGICIDES. FLUSHING MUST BE DONE IN A MANNER WHICH WILL NOT WASH THE PRODUCT FROM THE FOLIAGE AND REDUCE DISEASE CONTROL.

No additional surfactants are needed unless specified for an individual crop. Add this product to the spray tank followed by any sticker-spreaders, insecticides, nutrients, etc. Observe all cautions and limitations on the label of all products used in mixtures. The specific instructions given on this label are based on general applications and circumstances. The recommendations of the State Agricultural Extension Service should be closely followed as to timing, frequency and number of sprays per season.

NOTE: APPLICATION TO PLANT SURFACES SPRAYED WITH AND WHICH HAVE LOW pH CHEMICAL RESIDUE MAY ALSO RESULT IN CROP INJURY.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and the 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 unstable 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.

BERRIES, VINES AND HOPS

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CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS			
BLACKBERRY (Santiam, Logan, Boysen, Marion, Aurora, Cascade,	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, and Pseudomonas Blight.	2.67	Apply delayed dormant spray after training in Spring. Make Fall spray application after harvest. Add 1 quart of crop oil per acre.			
Chehalem and Thornless Evergreen)	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, and Yellow Rust.	1.4	Apply when leaf buds begin to open and repeat when flower buds show white. Continue applications at 7 day intervals. Add 1 quart of crop oil per acre.			
			age under certain conditions such as hot or tions if signs of crop injury appear.			
	Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interva	per year: 26.7 lb	2.67 lb (1.0 lb metallic copper) (10 lb metallic copper)			
BLUEBERRY (Bacterial Canker	3.75 to 4.67	Make first application before the Fall rains, preferably the first week in October and a second application four weeks later.			
	Maximum use rate per acre per application: 4.67 lb (1.75 lb metallic copper) Maximum use rate per acre per year: 22.4 lb (8.4 lb metallic copper) Minimum retreatment interval (days): 7					
CRANBERRY	Fruit Rot	5.6	Apply beginning in late bloom. One or two additional applications made at 7 to 14 day intervals may be required, depending on disease pressure.			
	Rose Bloom	5.6	Make three applications at 7 to 14 day intervals as soon as symptoms are observed.			
	Bacterial Stem Canker	5.6	Apply post harvest and again in the Spring before bud burst. One or two additional applications at 7 to 14 day intervals may be required depending on disease severity.			
	Tip Blight (Monilinia), Stem Blight, Leaf Blight, Red Leaf Spot	5.6	Apply as a delayed dormant spray in the Spring. Repeat at 7 to 14 day intervals as needed through pre-bloom.			
	Upright Dieback	5.3	Apply as a pre-bloom application. A second application can be made 7 to 14 days later if required.			
	Maximum use rate per acre per application: 5.6 lb (2.1 lb metallic copper) Maximum use rate per acre per year: 33.6 lb (12.6 lb metallic copper) Minimum retreatment interval (days): 7					
CURRANT & GOOSEBERRY	Anthracnose, Leaf Spot	7.0	Make three applications starting after harvest, before bloom and after petal fall. Continue on a 10 to 14 day schedule during wet conditions in the Spring.			
	Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interva	per year: 42.7 lb	7.0 lb (2.6 lb metallic copper)			

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS			
GRAPE	Black Rot, Phomopsis, Powdery Mildew, Downy Mildew	1.33 to 2.67	Begin application at bud break with additional applications made at 3 day intervals throughout the season if needed.			
	 Delaware, Niagara and Rost treating these varieties or o Hydrated lime may be adde 	sette. Use lower thers known to b d at a rate of up	in copper-sensitive varieties such as Concord, rate of this product and test for sensitivity when be sensitive to copper. to 1/2 pound per 100 gallons of spray solution to this product and water first before adding lime			
	or incompatibility may occu Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interval	er application: 2 er year: 53.3 lb	2.67 lb (1.0 lb metallic copper) (20 lb metallic copper)			
HOPS	Downy Mildew	1.33	Apply as a fungicide crown treatment after pruning, but before training. After training, additional fungicide treatments are needed at about 10 day intervals.			
	Discontinue use 2 weeks by Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interval	er application: er year: 7.07 lb	1.33 lb (0.5 lb metallic copper) (2.65 lb metallic copper)			
RASPBERRY	Leaf and Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, Pseudomonas Blight	2.67	Apply as a delayed dormant spray after training in the Spring. Make a Fall application after harvest. Add one quart of crop oil per acre.			
	Leaf and Cane Spot, Purple Blotch, Anthracnose, Yellow Rust	1.4	Apply when leaf buds begin to open and repeat when flower buds show white. Continue applications at 7 day intervals if needed. Add one quart of crop oil per acre.			
	NOTE: Crop injury may occur if applied to foliage under certain conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.					
	Maximum use rate per acre per application: 2.67 lb (1.0 lb metallic copper) Maximum use rate per acre per year: 26.7 lb (10 lb metallic copper) Minimum retreatment interval (days): 7					
STRAWBERRY	Leaf Spot & Leaf Blight	1.33 to 2.0	Begin application when plants are established and continue on a weekly schedule throughout season.			
	NOTE: Discontinue applications if signs of phytotoxicity appear. Maximum use rate per acre per application: 2.0 lb (0.75 lb metallic copper) Maximum use rate per acre per year: 21.8 lb (8.2 lb metallic copper) Minimum retreatment interval (days): 7					

FIELD CROPS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
ALFALFA	Cercospora & Leptosphaerulina Leaf Spots	1.33	Apply 10 to 14 days before each harvest or earlier if disease threatens. Repeat at 30 day intervals if needed.		
	NOTE: Spray injury ma	y occur with sen	sitive varieties such as Lahontan.		
		acre per year: 3	tion: 1.33 lb (0.5 lb metallic copper) lb (1.12 lb metallic copper) 0		
PEANUT	Cercospora Leaf Spot	1 to 2.0	Begin spraying 35 to 40 days after planting or when disease symptoms first appear. Continue applications at 7 to 14 day intervals. One to two quarts of six pounds per gallon flowable sulfur may be added.		
			Treat at 7 day intervals during humid weather. Use higher rates when conditions favor disease development.		
	Maximum use rate per acre per application: 2.0 lb (0.75 lb metallic copper) Maximum use rate per acre per year: 12.6 lb (4.74 lb metallic copper) Minimum retreatment interval (days): 7				
ΡΟΤΑΤΟ	Early Blight & Late Blight	0.67 to 1.0 or 2 to 2.67	Apply at 5 to 10 day intervals starting when plants are 6 inches high. Apply the lower rates in those locations where disease is light and the higher rate where disease is severe.		
	Colorado Potato Beetle (Suppression Only)		Application of this product at rates and timing recommended for control of <i>early blight</i> and <i>late blight</i> may provide suppression of the Colorado Potato Beetle.		
	Maximum use rate per acre per application: 2.67 lb (1.0 lb metallic copper) Maximum use rate per acre per year: 66.7 lb (25 lb metallic copper) Minimum retreatment interval (days): 5				
SUGARBEET	Cercospora Leaf Spot	1.33 to 3.33	Start spray when disease threatens and continue for 4 to 5 applications. Spray every 10 to 14 day intervals depending on weather conditions and on disease severity.		
	Maximum use rate per acre per application: 3.33 lb (1.25 lb metallic copper) Maximum use rate per acre per year: 21 lb (7.86 lb metallic copper) Minimum retreatment interval (days): 10				
WHEAT, BARLEY, OATS	Septoria Leaf Blotch & Helminthosporum Spot Blotch	1.0 to 1.33	Make first application by early heading and follow with second application if needed. The minimum retreatment interval is 10 days. Use the higher rates when conditions favor disease development.		
		acre per year: 2	tion: 1.33 lb (0.5 lb metallic copper) .83 lb (1.06 lb metallic copper) 0		

TREE CROPS

		TREE CP			
CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
ALMOND, APRICOT, CHERRY, PLUM, PRUNE	Bacterial Blast (<i>Pseudomonas</i>)	0.75	ALMOND ONLY: for Bacterial Blast control in sprinkler irrigated orchards or where disease is severe, treat post-bloom at 5 to 14 day intervals or just prior to sprinkling.		
	Coryneum Blight [Shot Hole] (<i>Stigmina carpophila</i>), Bacterial Canker, Blossom Brown Rot, Dead Bud (<i>Pseudomonas syringae</i>), Bacterial Blast (<i>Pseudomonas</i>)	5.33 to 8.0	Use as a dormant application before foliage buds swell. Apply at 7 day intervals. For CHERRIES , where disease is severe, an additiona application at leaf fall may be required.		
	Blossom Brown Rot, Coryneum Blight [Shot Hole] (<i>Stigmina carpophila</i>)	4.0	Early bloom (popcorn) application prior to full bloom.		
	 NOTES: To avoid plant injury, DO N In sensitive varieties of All occur from post-bloom spra 	MONDS, such	ates after full bloom. as Peerless, Mission, and Neplus slight leaf injury may		
	Dormant, late dormant applications Maximum use rate per acre per application: 8.0 lb (3.0 lb metallic copper) Minimum retreatment interval (days): 7				
	Bloom/growing season applications Maximum use rate per acre per application: 4.0 lb (1.5 lb metallic copper) Minimum retreatment interval (days): 5 For all uses:				
	Do not exceed a total of 4	8 lb (18 lb metal	lic copper) per acre per year		
APPLE	Anthracnose, European Canker, Blossom Blast, Shoot Blast (<i>Pseudomonas</i>)	8.0 to 10.5	Apply before Fall rains. NOTE: Use on yellow varieties may cause discoloration. To avoid, pick before spraying.		
	Fire Blight, Scab**	5.5 to 10.5	Make application as a full cover spray between silver- tip and green-tip. NOTE: Phytotoxicity may occur from late application. After green-tip apply at 2/3 pound per acre.		
	Crown or Collar Rot	2.75pounds in 100 gallons of water			
	** Not registered for use in California				
	<i>Fall / late dormant application</i> Maximum use rate per acre per application: 10.5 lb (3.9 lb metallic copper) Maximum number of applications per year: 1				
	Application between silver-tip and green-tip Maximum use rate per acre per application: 10.5 lb (3.9 lb metallic copper) Maximum number of applications per year: 1				
	Minimum retreatment inte	re per application	n: 4.0 lb (1.5 lb metallic copper)		
	For all uses: Do not exceed a total of 4	2.7 lb (16 b met	allic copper) per acre per year		
		Page 9 o			

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
AVOCADO	Anthracnose, Blotch, Scab	5.33 to 8.0	Apply when bloom buds begin to swell. Continue application at 14 to 30 day intervals for five to six applications. Use higher rates when conditions favor disease development.
	Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interva	per year: 50.4 l	8.0 lb (3.0 lb metallic copper) b (18.9 lb metallic copper)
CITRUS	Melanose, Scab, Algal Spot	2.75to 8.0	Apply as pre-bloom and post-bloom sprays at weekly intervals.
	Greasy Spot, Pink Pitting	1.33 to 4.0	Apply in summer on expanded new flush. Repeat on subsequent flushes at 7 day intervals when disease pressure is severe. Use higher rates when conditions favor disease development.
	Phytophthora Brown Rot, Septoria Spot	2.67to 5.33	Apply beginning in Fall before or just after the first rain. Continue applications at 7 day intervals if needed. Use higher rates when conditions favor disease development. For Brown Rot, apply to skirts of trees to a height of at least 4 feet. For Septoria Spot or if fruit have already been infected with Brown Rot, apply to the entire tree. Apply also to bare ground one foot beyond skirt of trees. NOTE:
	Citrus Canker (Suppression Only)	1.25 to 8.0	General Recommendations: Apply 8 pounds per acre, spraying flushes 7 to 14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications depend on disease pressure. Under heavy disease pressure, each flush of new growth should be sprayed. Minimum retreatment interval is 7 days.
			Florida Specific Recommendations: Begin applications to protect new leaf flushes. Repeat at 14 to 21 day intervals depending on disease pressure and environmental conditions. It is important to protect all subsequent leaf flushes throughout the year. Young fruit may require an additional application.
			Under dry weather conditions and low disease pressure, use 1.25 to 2.5 pounds per acre.
			Under conditions of wet weather and high disease pressure, higher rates may be required (4 to 8 pounds per acre) and applications may be needed every 7 days
	Alternaria Brown Spot	5.33 to 6.67	Apply to susceptible varieties on the first flush in the Spring and every additional flush. Application to fruit should start after two-thirds of the petals have fallen. Repeat applications at 7 to 21 day intervals.

		DDODUOT			
CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
	Phytophthora Foot Rot	0.67	Mix this product with 1 quart of water and paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prior to Summer rains and/or in the Fall prior to wrapping trees for freeze protection. Treatment serves as protection for up to one year, but does not cure existing infections. NOTE: Areas where microjet or low volume irrigation hit the tree trunk may require retreatment due to wash off.		
	NOTES:				
	• In California, in areas subj this product.	ect to copper in per application: per year: 33.6 l	igs grown in greenhouses or shadehouses. jury, add 1/3 to 1 pound of high quality lime per pound of 8.0 lb (3.0 lb metallic copper) b (12.6 lb metallic copper)		
CITRUS Field Nursery Grown	Melanose, Scab, Greasy Spot, Pink Pitting, Brown Rot and Citrus Canker (Suppression Only)	2.67to 5.33	Apply in 100 gallons of water at 28 day intervals.		
	Maximum use rate per acre per application: 5.33 lb (2.0 lb metallic copper) Maximum use rate per acre per year: 33.6 lb (12.6 lb metallic copper) Minimum retreatment interval (days): 28				
FILBERT	Bacterial Blight	10.67 to 16	Apply as a post-harvest spray. In seasons of heavy rainfall, apply another spray when three-fourths of the leaves have dropped. Add 1 pint of superior type oil per 100 gallons of water.		
	Eastern Filbert Blight	10.67 to 16	Apply in sufficient water to obtain thorough coverage. Make initial application at budswell to budbreak. Additional sprays should be made at14 day intervals depending on disease severity or when conditions are conducive for disease development. Add 1 pint of superior type oil per 100 gallons of water.		
	Maximum use rate per acre per application: 16 lb (6 lb metallic copper) Maximum use rate per acre per year: 64 lb (24 lb metallic copper) Minimum retreatment interval (days): 14				
KIWIFRUIT	Blossom Blight (Bud Rot), Leaf Spot (Phomopsis), Erwinia herbicola, Pseudomonas syringae, Pseudomonas fluorescens	1.33 to 2.0	Make two to three applications during dormant season. DO NOT apply at time of or after leaf emergence.		
	Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interva	per year: 16.8 l	2.0 lb (0.75 lb metallic copper) b (6.3 lb metallic copper)		
MACADAMIA	Blossom Blight & Raceme Blight, Anthracnose	3.0 to 6.0	Apply, depending on disease pressure, in 50 to 300 gallons of water during peak raceme development and bloom periods. For aerial application apply 3 to 6 pounds per acre in 10 to 30 gallons of water.		

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CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
OLIVE	Peacock Spot, Olive Knot	5.33 to 8.0	Make first application before Winter rains fall. A second application in early Spring should be made if disease is severe.		
	Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interva	per year: 48 lb	8.0 lb (3.0 lb metallic copper) (18 lb metallic copper)		
PEACH & NECTARINE	Leaf Curl, Coryneum Blight (Shot Hole), Bacterial Canker, Bacterial Blast (<i>Pseudomonas</i>), Bacterial Blight (<i>Xanthomonas</i>)	5.33 to 10.67	Apply after leaf fall as a dormant application. Use the higher rate when rainfall is very heavy and disease pressure is high. May be used with an agricultural spray oil.		
	Blossom Brown Rot, Leaf Curl, Coryneum Blight (Shot Hole)	5.33 to 8.0	Apply as a full cover spray at pink bud. Application at this time affords some control of <i>Leaf Curl</i> and <i>Coryneum Blight</i> .		
	Bacterial Spot	5.33	Apply as a dormant spray.		
	Minimum retreatment inter Bloom, growing season ap Maximum use rate per acro Minimum retreatment inter For all uses:	val (days): 7 p lications e per application val (days): 5	n: 10.67 lb (4.0 lb metallic copper) n: 4 lb (1.5 lb metallic copper)) lic copper) per acre per year		
PEAR	Fireblight	0.67	Apply at 5 day intervals throughout bloom period.		
	Pseudomonas Blight	8.0 to 10.67	Apply before Fall rains and again at dormant before Spring growth starts.		
	NOTE: Excessive dosages ma	ay cause fruit rus	set.		
	Bloom, growing season applications Maximum use rate per acre per application: 4.0 lb (1.5 lb metallic copper)) Minimum retreatment interval (days): 5				
	<i>Fall, late dormant applications</i> Maximum use rate per acre per application: 10.67 lb (4.0 lb metallic copper) Maximum number of applications per season: 1				
	For all uses: Do not exceed a total of 42	2.7 lb (16 lb met	allic copper) per acre per year		
	Shuck Rot, Kernel Rot	1.33 to 2.67	Apply at 2 to 4 week intervals when kernel growth begins through shuck opening.		
PECAN	(<i>Phytophthora cactorum</i>), Zonate Leaf Spot (<i>Cristulariella pyramidalis</i>) (Suppression Only)		Apply in sufficient water to ensure thorough coverage.		

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
PISTACHIO	Botrytis Blight, Botryosphaeria Panicle and Shoot Blight, Septoria Leaf Blight, Late Blight (<i>Alternaria</i> <i>alternata</i>)	2.67 to 5.33	Apply beginning at bud swell. Repeat at 14 to 28 day intervals depending on disease conditions. If disease conditions are severe, use the high rate and the short spray interval.		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 22.4 l	5.33 lb (2.0 lb metallic copper) b (8.4 lb metallic copper)		
QUINCE	Fire Blight	0.67	Apply at 5 day intervals throughout the bloom period. Apply in sufficient water to provide thorough coverage.		
	Bloom, growing season applications Maximum use rate per acre per application: 0.67 lb (0.25 lb metallic copper) Maximum use rate per acre per year: 42.7 lb (16 lb metallic copper) Minimum retreatment interval (days): 5				
WALNUT	Walnut Blight	5.33 to 8.0	Apply first spray at early pre-bloom prior to or when catkins are partially expanded. Make additional applications at 7 day intervals during bloom and early nutlet stage if needed. Additional applications may be necessary when frequent rainfall occurs.		
	Adequate control may not present.	be obtained wh	nmer oil emulsion may be added per 100 gallons of spray. Then copper tolerant species of <i>Xanthamonas</i> bacteria are		
	Maximum use rate per acre per application: 8.0 lb (3.0 lb metallic copper) Maximum use rate per acre per year: 85.3 lb (32 lb metallic copper) Minimum retreatment interval (days): 7				

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TROPICAL CROPS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
BANANA	Sigatoka	1.33	Apply by air. Mix this product in 3 gallons of water containing 1/2 gallon agricultural oil. Apply on a 7 to 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.
	Black Pitting	2.67	Mix in 100 gallons of water. Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 50.4 l	2.67 lb (1.0 lb metallic copper) b (18.9 lb metallic copper)

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
CACAO	Black Pod	1.33 to 5.67	Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates from 1.33 to 5.33 pounds per acre depending on disease severity. For drier areas, where two to four applications are recommended during critical infection periods and at long intervals, use 4 to 5.67 pounds per acre, according to disease pressure incidence and planting density.		
	Maximum use rate per acre p Maximum use rate per acre p Minimum retreatment interva	per year: 42 lb	5.67 lb (2.13 lb metallic copper) (15.75 lb metallic copper)		
COFFEE	Coffee Berry Disease (Collectotrichum coffeanum)	4.0 to 5.33	Apply first spray after flowering and before onset of long rains and then at 14 to 28 day interval until picking. Use higher rates when rainfall is heavy and disease pressure is high.		
	Bacterial Blight (<i>Pseudomonas syringae</i>)	4.0 to 5.33	Begin spray program before onset of the long rains and continue throughout the rainy season at 14 to 21 day intervals. The critical application timing for control of this disease is just before, during, and after flowering(s), especially when coinciding with wet weather. Use the higher rates when rainfall is heavy and disease pressure is high.		
	Leaf Rust (Hemileia vastatrix)	1.33 to 2.67	Apply before the onset of rain and then at 14 to 21 day intervals while the rains continue. Use higher rates when rainfall is heavy and disease pressure is high.		
	Iron Spot (<i>Cercospora</i> coffeicola) Pink Disease (<i>Corticium</i> salmonicolor)	1.33	Apply as a concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.		
	Maximum use rate per acre per application: 5.33 lb (2.0 lb metallic copper) Maximum use rate per acre per year: 33.6 lb (12.6 lb metallic copper) Minimum retreatment interval (days): 14				
GUAVA	Anthracnose, Red Algae	2.0	Apply beginning just prior to flowering and repeat weekly until just prior to harvest.		
	Maximum use rate per acre per application: 2.0 lb (0.75 lb metallic copper) Maximum use rate per acre per year: 13.1 lb (4.9 lb metallic copper) Minimum retreatment interval (days): 7				
LITCHI	Anthracnose	2.0	Apply beginning just prior to flowering and repeat weekly until just prior to harvest.		
	Maximum use rate per acre per application: 2.0 lb (0.75 lb metallic copper) Maximum use rate per acre per year: 13.1 lb (4.9 lb metallic copper) Minimum retreatment interval (days): 7				
MAMEY SAPOTE	Anthracnose, Algal Leaf Spot	4.0to 5.0	Apply when conditions favor disease development. Repeat at 14 to 30 day intervals as needed.		
	Maximum use rate per acre per application: 5.0 lb (1.88 lb metallic copper) Maximum use rate per acre per year: 22.4 lb (8.4 lb metallic copper) Minimum retreatment interval (days): 14				

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
MANGO	Anthracnose	5.33 to 6.67	Apply at 7 day intervals after fruit set until harvest.		
(Florida & Puerto Rico)	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 128 lb	6.67 lb (2.5 lb metallic copper) o (48 lb metallic copper)		
ΡΑΡΑΥΑ	Anthracnose	2.0 to 6.67	Apply beginning before disease is expected to appear andrepeat at 7 to 14 day intervals. Treat every 7 days during periods of heavy rainfall. Use the higher rates when conditions favor disease development. The addition of a suitable spreader-sticker may be desirable especially during periods of heavy rains.		
	Maximum use rate per acre per application: 6.67 lb (2.5 lb metallic copper) Maximum use rate per acre per year: 56.5 lb (21.2 lb metallic copper) Minimum retreatment interval (days): 7				
PASSION FRUIT	Anthracnose	4.0	Apply beginning just prior to flowering and repeat weekly until just before harvest.		
	Maximum use rate per acre per application: 4.0 lb (1.5 lb metallic copper) Maximum use rate per acre per year: 25.2 lb (9.4 lb metallic copper) Minimum retreatment interval (days): 7				
SUGAR APPLE (Annona)	Anthracnose	8.0	Apply beginning just prior to flowering and repeat weekly until just before harvest.		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 33.6 ll	8.0 lb (3.0 lb metallic copper) b (12.6 lb metallic copper)		

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VEGETABLE CROPS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
BEAN (Dry, Green)	Brown Spot, Bacterial Blight (Halo & Common)	0.67 to 2.0	For protective sprays, apply first when plants are six inches high. Continue applications on 7 to 14 day schedule depending on local conditions. Adjust rates depending on disease severity.
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 12.6 l	2.0 lb (0.75 lb metallic copper) b (4.74 lb metallic copper)
CARROT	Alternaria Leaf Spot, Carrot Blight (Cercospora)	1.33	When disease threatens apply at 7 to 14 day intervals depending on disease severity.
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 13.3 l	1.33 lb (0.5 lb metallic copper) b (5 lb metallic copper)
CELERY & CELERIAC	Cercospora Early, Septoria Late Blight & Bacterial Blights	1.33	Apply as soon as plants are first established in the field, then every 7 days depending on disease severity and weather.
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 14.1 l	1.33 lb (0.5 lb metallic copper) b (5.3 lb metallic copper)

		N.S. States			
CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
CRUCIFERS Broccoli, Brussels Sprout, Cabbage, Cauliflower, ^{Kale,} Collard Greens,	Black Rot (<i>Xanthomonas</i>), Black Leaf Spot (<i>Altemaria</i>), Downy Mildew	0.33 to 0.67	Apply at 7 day intervals after transplants are set in the field. Use higher rate when conditions favor disease.		
Mustard Greens, and Turnip Greens	NOTE: Reddening of older wrapper leaves may occur of		ur on broccoli at the higher rate and flecking of		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 7.07	0.67 lb (0.25 lb metallic copper) b (2.65 lb metallic copper)		
CUCURBITS Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash, and Watermelon	Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Powdery Mildew, Gummy Stem Blight, Watermelon Bacterial Fruit Blotch (Suppression)	1.33	Apply beginning when conditions are favorable for disease development and repeat at 5 to 7 day intervals, as needed depending on disease severity.		
	NOTE: Crop injury may occur from application at shorter intervals. Discontinue use if injury occurs.				
		per year: 14 lb	1.33 lb (0.5 lb metallic copper) (5.25 lb metallic copper)		
EGGPLANT (Except California)	Alternaria Blight, Anthracnose, Phomopsis	1.33	Use before disease appears. Repeat at 7 to 10 day intervals.		
	Maximum use rate per acre per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 21.1 lb (7.9 lb metallic copper) Minimum retreatment interval (days): 7				
ENDIVE, ESCAROLE	Downy Mildew	0.67 to 1.33	Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 21.3	1.33 lb (0.5 lb metallic copper) b (8 lb metallic copper)		
GARLIC, LEEK, ONION	Purple Blotch & Downy Mildew	1.33	Apply when plants are four to six inches high and repeat at 7 to 10 day intervals.		
	Bacterial Blight	0.67 to 1.0			
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 16 lb	1.33 lb (0.5 lb metallic copper) (6 lb metallic copper)		
LETTUCE	Downy Mildew	0.67 to 1.33	Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 21.3	1.33 lb (0.5 lb metallic copper)		

		PRODUCT		
CROP	DISEASE	RATE PER ACRE (pounds)	USE INSTRUCTIONS	
PEA	Powdery Mildew	1 to 2.0	Begin spray treatment when disease symptoms first appear. Adjust rates according to disease severity. Repeat applications at weekly intervals.	
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 10.5 l	2.0 lb (0.75 lb metallic copper) b (3.95 lb metallic copper)	
PEPPER	Bacterial Spot	1.33to 2.0	When disease threatens, apply in sufficient water for adequate coverage at 3 to 10 day intervals depending on disease severity.	
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 31.6 I	2.0 lb (0.75lb metallic copper) b (11.85 lb metallic copper)	
SPINACH	Anthracnose, Cercospora Leaf Spot, Downy Mildew, White Rust, Blue Mold	1.33 to 2.1	Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.	
	NOTE: Flecking may occur Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per application: per year: 10.5 l	2.1 lb (0.79 lb metallic copper)	
TABLE BEET, BEET GREENS	Cercospora Leaf Spot	1.33 to 2.67	7 Apply when conditions favor disease development. Repeat treatment at 10 to 14 day intervals as needed. The addition of an agricultural spray oil is recommended.	
			needed. The addition of an agricultural spray oil is	
	Maximum use rate per acre	per year: 21 lb	needed. The addition of an agricultural spray oil is recommended. 2.67 lb (1.0 lb metallic copper)	
ΤΟΜΑΤΟ		per year: 21 lb	needed. The addition of an agricultural spray oil is recommended. 2.67 lb (1.0 lb metallic copper)	
ΤΟΜΑΤΟ	Maximum use rate per acre Minimum retreatment interv	per year: 21 lb al (days): 10 1.33to 2.0	needed. The addition of an agricultural spray oil is recommended. 2.67 lb (1.0 lb metallic copper) (7.86 lb metallic copper) When disease threatens, apply at 3 to 10 day	
ΤΟΜΑΤΟ	Maximum use rate per acre Minimum retreatment interv	per year: 21 lb al (days): 10 1.33to 2.0 (fresh market) 1.4	needed. The addition of an agricultural spray oil is recommended. 2.67 lb (1.0 lb metallic copper) (7.86 lb metallic copper) When disease threatens, apply at 3 to 10 day	
ΤΟΜΑΤΟ	Maximum use rate per acre Minimum retreatment interv Early Blight, Late Blight	per year: 21 lb al (days): 10 1.33to 2.0 (fresh market) 1.4 (processing) 1.33 (fresh market	needed. The addition of an agricultural spray oil is recommended. 2.67 lb (1.0 lb metallic copper) (7.86 lb metallic copper) When disease threatens, apply at 3 to 10 day intervals. Apply at 10 to 30 day intervals beginning when the disease threatens. Use more frequent applications	

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
	Maximum use rate per a Minimum retreatment in		3 lb (8 lb metallic copper)
		acre per year: 46.	n: 1.4 lb (0.53 lb metallic copper) 4 lb (17.4 lb metallic copper)
WATERCRESS	Cercospora Leaf Spot	1.33	Apply when plants are established in the field. Repeat at 7 to 14 day intervals but do not exceed four applications per crop. Apply in at least 50 gallons of water per acre.
		re per year: 5.65	1.33 lb (0.5 lb metallic copper) lb (2.12 lb metallic copper)

MISCELLANEOUS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS		
ΑΤΕΜΟΥΑ	Anthracnose	2.0	Apply just prior to flowering and repeat weekly until just prior to harvest.		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 33.6	2.0 lb (0.75 lb metallic copper) b (12.6 lb metallic copper)		
CARAMBOLA	Anthracnose	4.0	Apply just prior to flowering and repeat weekly until just prior to harvest.		
	Maximum use rate per acre per application: 4.0 lb (1.5 lb metallic copper) Maximum use rate per acre per year: 28 lb (10.5 lb metallic copper) Minimum retreatment interval (days): 7				
CHIVES	Downy Mildew	1.33	Apply when plants are established in the field. Repeat at 7 to 10 day intervals as needed.		
	Maximum use rate per acre per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 7.07 lb (2.65 lb metallic copper) Minimum retreatment interval (days): 7				
DILL	Phoma Leaf Spot, Rhizoctonia Foliage Blight	1.75	Apply when plants are established in the field. Repeat at 7 to 10 day intervals as needed.		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 10.5	1.75 lb (0.66 lb metallic copper) lb (3.95 lb metallic copper)		
DOUGLAS FIR	Rhabodocline Needlecast	1.33	Apply at bud break and repeat at 21 to 28 day intervals. Apply in a tank mix with other registered pesticide if disease pressure is moderate to severe.		
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 53.3	1.33 lb (0.5 lb metallic copper) lb (20 lb metallic copper)		

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS			
GINSENG	Alternaria Leaf & Stem Blight	1.75	This product may be applied as a tank mix with an Iprodione-containing fungicide at the rate of 1 lb ai/A in 100 gallons of water per acre. Begin Iprodione/Champ Dry Prill applications as soon as plants have emerged in Spring. Applications should be repeated every 7 days until plants become dormant in Fall. Apply fungicides at least eight hours before rain, giving the fungicides time to dry on the plants. Use of a spreader-sticker is advised.			
	NOTE: Alternaria Leaf & Stem Blight is most severe in humid conditions such as those found in the dense canopies of two, three and four year old ginseng. Complete and thorough spray coverage is required for control.					
	Maximum use rate per acre per application: 1.75 lb (0.66 lb metallic copper) Maximum use rate per acre per year: 14 lb (5.25 lb metallic copper) Minimum retreatment interval (days): 7					
PARSLEY	Bacterial Blight (<i>Pseudomonas spp.</i>)	2.0	Apply when plants are first established in the field and repeat at 10 day intervals.			
	Maximum use rate per acre per application: 2.0 lb (0.75 lb metallic copper) Maximum use rate per acre per year: 5.33 lb (2.0 lb metallic copper) Minimum retreatment interval (days): 10					
PERSIMMON	Cercospora Leaf Spot	1.33	Apply beginning in May/June, during leaf flush, and repeat at 14 day intervals throughout the season depending on disease severity.			
	Maximum use rate per acre Maximum use rate per acre Minimum retreatment interva	per year: 16 lb	1.33 lb (0.5 lb metallic copper) (6 lb metallic copper)			

TURFGRASS

CROP	DISEASE	PRODUCT RATE	USE INSTRUCTIONS
TURFGRASS (such as sodfarms, golf courses, cemeteries, home lawns, and industrial or	Algae Control	0.184 lb per 1000 ft ² or 8 lb per Acre	Apply in 5 gallons of water to control algae. This product may be used alone or in combination with other registered fungicides as a maintenance spray. Use no more than 0.184 lb per 1000 ft ² as a spot treatment.
home lawns, and industrial or municipal turf areas (including parks, playgrounds, athletic fields))	use. DO NOT	apply in spray s year: 1.29 lb/10	ding upon varietal differences. If injury occurs discontinue solutions with a pH of less than 6.5. 000 ft ² or 56 lb/Acre (21 lb metallic copper/Acre) 21

GREENHOUSE AND SHADEHOUSE CROPS

This product may be used in greenhouses and shadehouses to control diseases on crops listed on this label. Specific directions are provided below for certain crops and the grower should be aware that the sensitivity of crops grown under such conditions differ greatly from field conditions. The user must determine if this product can be used safely prior to commercial application by testing a small area and observing the results for 7 to 10 days.

One level tablespoon of this product per 1,000 square feet is equivalent to 1.5 pounds per acre. Begin application at first sign of disease and repeat if needed. Observe the retreatment interval listed in the table below.

PRODUCT RATE CROP PER 1000 ft² DISEASE **USE INSTRUCTIONS** (TBSP) CUCUMBER Angular Leaf Spot, Downy 1.25 to 1.5 Apply at 5 to 7 day intervals when plants begin to Mildew vine. Maximum use rate per crop cycle: 9.5 TBSP/1000 ft² (5.25 lb metallic copper/Acre) Minimum retreatment interval (days): 5 EGGPLANT Alternaria Blight. 14 Apply at first sign of disease and repeat at 7 to 10 Anthracnose, Phomopsis day intervals as needed. Maximum use rate per crop cycle: 14.2 TBSP per 1000 ft² (7.9 lb metallic copper/Acre) Minimum retreatment interval (days): 7 PEPPER **Bacterial Spot** 1.4 Apply when conditions first favor disease and at 3 to 10 day intervals as needed. Maximum use rate per crop cycle: 21.4 TBSP per 1000 ft² (11.85 lb metallic copper/Acre) Minimum retreatment interval (davs): 3 TOMATO Anthracnose, Bacterial 1.5 to 2.25 Apply when conditions first favor disease and at 3 to Speck, Bacterial Spot, Early 10 day intervals as needed. Blight, Grey Leaf Mold, Late Blight, Septoria Leaf Spot Maximum use rate per crop cycle: 14.4 TBSP per 1000 ft² (8 lb metallic copper/Acre) Minimum retreatment interval (davs): 3

NOTE: DO NOT use this product on Citrus seedlings grown in greenhouses or shadehouses.

ORNAMENTALS

Use this product on container, bench, or bed-grown ornamentals in greenhouses, shadehouses or outdoor nurseries, for professional use on ornamentals grown in indoor and outdoor landscaping, and for control of bacterial and fungal diseases of foliage, flowers and stems.

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
PECAN, LIVE OAK (Texas and Florida)	Ball Moss	5.3	Apply in 100 gallons of water in the spring after heavy rain, using 1.5 gallons of spray per foot of tree height. Make sure to wet tufts thoroughly. A second application may be required after 12 months.
	NOTE: This product m	ay be injurious to orna	mentals grown under live oaks.
	Maximum use rate per Maximum of 1 applicati		0.24 lb/1000 ft ² (3.9 lb metallic copper/Acre)
PHILODENDRON	Bacterial Leaf Spot	1.0	Apply in 100 gallons of water before disease appears. Continue applications at 7 day intervals.
	Maximum use rate per Minimum retreatment ir		1.2 lb/1000 ft ² (20 lb metallic copper/Acre)
SYCAMORE	Anthracnose	1.33 to 2.0	Make two applications as a full cover spray. Make first application at bud crack and second application 7 to 14 days later at 10% leaf expansion.
	Maximum use rate per Minimum retreatment in		1.2 lb/1000 ft ² (20 lb metallic copper/Acre)

FOR CONTROL OF BACTERIAL AND FUNGAL DISEASES ON FOLIAGE, FLOWERS, AND STEMS OF ORNAMENTALS grown in Greenhouses, Shadehouses, Fields and Nurseries (container, bench or bedgrown), and on ornamentals grown in indoor and outdoor landscapes:

Apply this product at 2/3 pound per 100 gallons as a full cover spray beginning at first sign of disease. Apply up to 800 gallons of solution per acre per application (2.0 lb metallic copper/Acre). Do not exceed a total 53.3 lb product/Acre per year (maximum of 20 lb metallic copper/Acre per year). Repeat at intervals of 7 to 14 days depending on rainfall and disease severity. Due to the large number of species, widely varying growth conditions, and varieties of ornamentals and nursery plants it is impossible to test every one for sensitivity to this product. The user should apply the recommended rate of this product in a small area and check for any symptoms of phytotoxicity in 7 to 10 days prior to large-scale application.

DO NOT tank mix with Aliette[®] fungicide without buffering the spray solution.

One-half (1/2) tablespoon (TBSP) of this product per gallon of water is equivalent to 1.75 pounds per 100 gallons.

ORNAMENTAL	DISEASE
AGLAONEMA	Bacterial Leaf Spot
ALTHEA (Rose of Sharon)	Bacterial Leaf Spot
ARALIA	Xanthomonas & Cercospora Leaf Spots, Alternaria
ARBORVITAE	Alternaria Twig Blight, Cercospora Leaf Spot
AZALEA (1)	Cercospora Leaf Spot, Botrytis Blight, Phytophthora Dieback, Powdery Mildew
BEGONIA	Bacterial Leaf Spot (Xanthomonas spp., Erwinia spp., Pseudomonas spp.)
BOSTON FERN	Bacterial Leaf Spot
BOUGAINVILLEA	Anthracnose, Bacterial Leaf Spot
BULBS (Easter Lilly (2), Tulip)	Botrytis Blight, Anthracnose
CAMELLIA	Anthracnose, Bacterial Leaf Spot
CAMPHOR TREE	Pseudomonas Leaf Spot
CANNA	Pseudomonas Leaf Spot
CARNATION (1)	Alternaria Blight, Pseudomonas Leaf Spot & Botrytis Blight
CHINESE TALLOW TREE	Bacterial Leaf Spot (Xanthomonas spp., Pseudomonas spp.)
CHRYSANTHEMUM (1)	Septoria Leaf Spot, Botrytis Blight
COTONEASTER	Botrytis Blight
DAHLIA	Alternaria Leaf Spot, Cercospora Leaf Spot, Botrytis Grey Mold
DATE PALM	Pestalotia Leaf Spots
DIANTHUS	Bacterial Spot, Bacterial Soft Rot
DOGWOOD	Anthracnose
DRACAENA	Bacterial Leaf Spot
DUMB CANE	Bacterial Leaf Spot
DUSTY MILLER	Bacterial Leaf Spot (Pseudomonas cichorii spp.)
ECHINACEA	Botrytis Blight
ELM (Drake)	Xanthomonas Leaf Spot
EUONYMUS	Botrytis Blight, Anthracnose
EUROPEAN FAN PALM	Pestalotia Leaf Spot
GARDENIA	Alternaria Leaf Spot, Cercospora Leaf Spot, Botrytis Bud Rot
GERANIUM	Alternaria Leaf Spot, Cercospora Leaf Spot, Botrytis Grey Mold
GLADIOLUS	Alternaria Leaf Spot, Botrytis Grey Mold, Bacterial Leaf Blight, Botrytis Blight, Anthracnose
GOLDEN RAIN TREE	Alternaria Leaf Spot, Botrytis Grey Mold, Bacterial Leaf Blight

ORNAMENTAL	DISEASE	
GRAPE IVY	Bacterial Leaf Spot	-
HIBISCUS (3)	Bacterial Leaf Spot	
HOLLY FERN	Pseudomonas Leaf Spot	
HONEY LOCUST	Bacterial Leaf Spot	
IMPATIENS	Bacterial Leaf Spot	
INDIA HAWTHORN (4)	Anthracnose, Entomosporium Leaf Spot	
IRIS	Bacterial Leaf Spot	
IVY (English, Algerian) (1)	Xanthomonas Leaf Spots	
IXORA	Xanthomonas Leaf Spots	
JUNIPER (Eastern Red Cedar)	Anthracnose	
LILAC	Cercospora Leaf Spot	
LOBLOLLY BAY	Anthracnose	
LOQUAT	Entomosporium maculate, Colletotrichum spp.	130
MAGNOLIA (Southern)	Anthracnose, Bacterial Leaf Spot, Algal Leaf Spot	
MAGNOLIA (Sweet Bay)	Anthracnose	
MAGNOLIA	Bacterial Leaf Spot	
MANDEVILLAS	Anthracnose	
MARIGOLD	Alternaria Leaf Spot, Botrytis Leaf Rot, Flower Rot, Cercospora Leaf Spot	
MULBERRY - CONTORTED	Bacterial Leaf Spot	
MULBERRY - WEEPING	Bacterial Leaf Spot	
NEPHTHYTIS	Bacterial Leaf Spot	
OLEANDER	Bacterial Leaf Spot, Fungal Leaf Spot	
OAK, LAUREL	Algal Leaf Spot (Cephaleuros virescens spp.)	
PACHYSANDRA	Volutella Leaf Blight	
PANSY	Downy Mildew	
PEAR (Flowering)	Bacterial Leaf Spot	
PENTAS (Egyptian Start)	Bacterial Leaf Spot (Xanthomonas spp.)	
PEONY	Botrytis Blight	
PERIWINKLE	Phomopsis Stem Blight	
PHLOX	Alternaria Leaf Spot	
PHOTINIA (Red Tip, Red Leaf)	Anthracnose, Entomosporium	
PISTACHIO	Anthracnose	
PLANTAIN LILY	Bacterial Leaf Spot	
POTHOS	Bacterial Leaf Spot	
POWDER PUFF PLANT	Bacterial Leaf Spot	
PURPLE OSIER WILLOW	Anthracnose	
PYRACANTHA	Fireblight, Scab	
QUEEN PALM	Exosporium Leaf Spot, Phytophthora Bud Rot	
RHODODENDRON	Alternaria Flower Spot	
ROSE (1)	Powdery Mildew, Black Spots	

ORNAMENTAL	DISEASE	1994 N
SNAPDRAGON	Anthracnose, Dieback, Downy Mildew	
SPATHE FLOWER	Bacterial Leaf Spot	
TATARIAN HONEYSUCKLE	Bacterial Leaf Spot	
UMBRELLA TREE	Bacterial Leaf Spot	1.1.1
VERBENA	Xanthomonas Leaf Spot	-
VIBURNUM	Anthracnose	
WASHINGTON PALM	Pestalotia Leaf Spot	
WEEPING FIG	Bacterial Leaf Spot	18.
WEEPING WILLOW	Anthracnose	
YUCCA (ADAMS NEEDLE)	Cercospora & Septoria Leaf Spot	1.

1. On some varieties a discoloration may occur on foliage or blooms. To prevent residues on commercial plants, **DO NOT** spray just before selling season.

2. Apply 2 to 3.5 lb of this product (1.3 lb metallic copper) in 20 to 100 gallons of water per acre. Do not apply more than 200 lb of product (75 lb metallic copper) per acre per year.

- 3. Hibiscus DO NOT apply to plants in flower.
- 4. For India Hawthorn, use 1.4 to 2.75 pounds product per 100 gallons water or 0.75 to 1.5 tablespoons per gallon. Apply up to 5.3 lb product (2 lb metallic copper) per acre per application. Do not exceed a total of 53.3 lb product (20 lb metallic copper) per acre per year.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool dry place.

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 Environmental Protection Agency Regional Office for guidance.

CONTAINER HANDLING:

[Nonrefillable bags]

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.

[Nonrefillable Containers 50 lbs or Less]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

[Nonrefillable containers larger than 50 lbs]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

STORAGE AND DISPOSAL

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CONTAINER HANDLING: (Continued)

[For Fiber Drums with Liners]

Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of liner in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

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LABEL HISTORY

Revision Mark	Comment
RV021210	PRN2007-4 update
RV031910	EPA Approval
RV051011	Labeling revisions required for the reregistration of Champ Dry Prill
RV062011	EPA Approval
RV092811	Amendment of REI statement required by the RED. In addition, revision of use sites description for ornamentals.
	RV021210 RV031910 RV051011 RV062011