

COPPER | GROUP | M1 | FUNGICIDE

# Champ<sup>®</sup> Dry Prill

**AGRICULTURAL FUNGICIDE / BACTERICIDE**

**ACTIVE INGREDIENT:**

Copper Hydroxide\* (CAS No. 20427-59-2).....57.6%

**OTHER INGREDIENTS:**.....42.4%

**TOTAL:**.....100.0%

\*(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 FIRST AID, PRECAUTIONARY  
STATEMENTS AND DIRECTIONS FOR USE**

**For Medical Emergencies, Call (877) 325-1840**

**For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300**

EPA REG. NO. 55146-57

Manufactured for  
Nufarm Americas Inc.  
AGT Division  
11901 S. Austin Avenue  
Alsip, IL 60803

Made in Chile

**Net Weight**

8 Lbs.

20 Lbs.

12535000

RV072722[2]

 **Nufarm**  
Grow a better tomorrow

## 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.

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

**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
- Waterproof gloves
- 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 the 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.

**Engineering Controls Statements**

Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].

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.

## **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), restricted-entry interval (REI), and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval of 48 hours.** 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:

- Long sleeved shirt and coveralls
- Waterproof gloves
- Shoes plus socks
- Protective eyewear such as safety glasses, goggles, or face shield

### **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.

## PRODUCT INFORMATION AND USE 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.

**MIXING INSTRUCTIONS:** Proper mixing of this product with water requires use of a spray tank equipped with agitation.

### Mixing Order

1. **Water:** Begin by agitating a thoroughly clean sprayer tank containing one-half the required amount of clean water.
2. **Agitation:** Maintain constant agitation throughout mixing and application.
3. **Inductor:** If an inductor is used, rinse it thoroughly after each application. Add **Champ Dry Prill** at a slow rate to prevent system and/or port blockage.
4. **Champ Dry Prill:** Slowly add the required amount of this product to the sprayer tank.
5. **Remaining Quantity of Water:** Slowly add the remaining volume of clean water.
6. **Additives:** Add any tank mix partners last. Make sure that **Champ Dry Prill** is thoroughly mixed and dispersed before addition of additives. If you do not have previous experience with **Champ Dry Prill** and additive mixtures, conduct a small-jar test to confirm compatibility of tank mixtures prior to full scale use. Follow the most restrictive label limitations for tank mix additives.

Maintain constant agitation during application.

### APPLYING SPRAY MIXTURE

This product may be applied as an aerial or ground concentrate spray unless specifically directed otherwise by crop in the use instructions.

Under heavy disease pressure or when conditions favor such, use the higher rate and shorter spray intervals specified for each crop. In addition, use the higher rates for large mature tree crops.

The per acre use rate of this product is applicable for both dilute and concentrate spraying. Consult this label for specific rates and timing of application by crop.

Complete spray coverage is essential to assure optimum performance from this product. When treating on a concentrate basis or by aerial application, unless you have had specific previous experience, it is advisable to test for compatibility and crop tolerance prior to full-scale commercial utilization.

While volume is important in obtaining full spray coverage, other factors such as foliage density, environmental conditions and sprayer calibrations, can have a greater impact. Always be sure that sprayers are calibrated to spray equipment manufacturer's specifications and environmental conditions are within those specified by state and local regulatory authorities.

<b>MINIMUM SPRAY VOLUMES†</b>			
<b>Crops</b>	<b>Dilute (Ground) Gallons / Acre</b>	<b>Concentrate (Ground) Gallons / Acre</b>	<b>Aerial Gallons / Acre</b>
<b>Berries</b>	150	50	5
<b>Citrus</b>	800	100**	10
<b>Field Crops</b>	20	3	3
<b>Tree Crops (except citrus)</b>	400	50	10
<b>Tropical Crop (Low volume):</b> Guava, Litchi, Mamey Sapote, Papaya, Passion Fruit, Sugar Apple (Annona)	150	50	10
<b>Tropical Crops (High volume):</b> Banana, Cacao, Coffee, Mango, Plantain	400	50	10
<b>Vegetables</b>	20	3	3
<b>Vines</b>	150	50	5
<b>Miscellaneous</b>	150	50	10

† See crop specific use instructions for additional information regarding recommended spray volumes for certain crops.

\*\* Spray volumes as low as 20 gallons per acre may be used with pesticide application equipment such as "Curtec" or similar sprayers that are capable of obtaining thorough coverage at low volumes.

**SMALL VOLUME MIXTURES (< 100 gallons): One level tablespoon (TBSP) of this product per 1,000 square feet is equivalent to 1.5 pounds per acre. One level tablespoon (TBSP) of this product per gallon of water is equivalent to 3.5 pounds of product per 100 gallons.**

#### **USE PRECAUTIONS**

- The Pre-Harvest Interval (PHI) for this product is 0-days 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 houses, cars, lawn furniture, or other metal surfaces where the quality of the finish is a concern.
- 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.
- Application of this product to wet crops or a rain event occurring before the spray is dry may result in reduced performance.
- Unpredictable performance or crop injury may result from tank mixing this product with certain pesticides or additives, especially when tank mixing multiple products. Unless a tank mixture with other pesticides or additives has been determined to be compatible and non-injurious to the crop under your conditions of use, test for compatibility and potential crop injury prior to commercial use.
- Agricultural chemicals may be reactive with soft metals (e.g. aluminum) and some synthetic materials (such as plastics, rubbers, etc.) used in the construction of application equipment. Thoroughly flush all application equipment with clean water after each day's use.

#### **RESTRICTIONS**

- Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].
- Do not apply this product in a spray solution having a pH of less than 6.5 as phytotoxicity may occur.
- Do not tank mix this product with Aliette® fungicide unless appropriate precautions are taken to buffer the spray solution or severe phytotoxicity may result.
- In California, do not apply with equipment which contains aluminum parts or components.



## SPRAY DRIFT

### Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy or water, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speed exceeds 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the application area.
- Do not apply during temperature inversions.

### Ground Boom Applications

- Apply with the spray release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Controlling Droplet Size – Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **Controlling Droplet Size – Aircraft**

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **BOOM HEIGHT – Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift. When applying aurally to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Champ Dry Prill contains copper hydroxide, a Group M1 fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to Champ Dry Prill and other Group M1 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

The following steps may delay the development of fungicide/bactericide resistance:

- Rotate the use of this product or other Group M1 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides/bactericides from a different group that are effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.

## **CHEMIGATION INSTRUCTIONS**

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 area 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.

### **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.

## BERRIES, VINES AND HOPS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>BLACKBERRY</b> (Santiam, Logan, Boysen, Marion, Aurora, Cascade, Chehalem and Thornless Evergreen)	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.
	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.
	<p><b>NOTE:</b> 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.</p> <p>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</p>		
<b>BLUEBERRY*</b>	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.
	<p>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  <b>*Not registered for use in California</b></p>		

*(continued)*

## BERRIES, VINES AND HOPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>CRANBERRY</b>	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		

*(continued)*



## BERRIES, VINES AND HOPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>CURRENT &amp; GOOSEBERRY</b>	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 per application: 7.0 lb (2.6 lb metallic copper) Maximum use rate per acre per year: 42.7 lb (16 lb metallic copper) Minimum retreatment interval (days): 10		
<b>GRAPE</b>	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.
	<b>NOTES:</b> <ul style="list-style-type: none"> <li>• Slight to severe foliage injury may occur in copper-sensitive varieties such as Concord, Delaware, Niagara and Rosette. Use lower rate of this product and test for sensitivity when treating these varieties or others known to be sensitive to copper.</li> <li>• Hydrated lime may be added at a rate of up to 1/2 pound per 100 gallons of spray solution to decrease the severity of phytotoxicity. Mix this product and water first before adding lime or incompatibility may occur.</li> </ul> Maximum use rate per acre per application: 2.67 lb (1.0 lb metallic copper) Maximum use rate per acre per year: 53.3 lb (20 lb metallic copper) Minimum retreatment interval (days): 3		

*(continued)*

## BERRIES, VINES AND HOPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>HOPS</b>	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.
	<p><b>NOTE:</b> Discontinue use 2 weeks before harvest.</p> <p>Maximum use rate per acre per application: 1.33 lb (0.5 lb metallic copper)</p> <p>Maximum use rate per acre per year: 7.07 lb (2.65 lb metallic copper)</p> <p>Minimum retreatment interval (days): 10</p>		
<b>RASPBERRY</b>	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.
	<p><b>NOTE:</b> 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.</p> <p>Maximum use rate per acre per application: 2.67 lb (1.0 lb metallic copper)</p> <p>Maximum use rate per acre per year: 26.7 lb (10 lb metallic copper)</p> <p>Minimum retreatment interval (days): 7</p>		

*(continued)*

## BERRIES, VINES AND HOPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>STRAWBERRY</b>	Leaf Spot & Leaf Blight	1.33 to 2.0	Begin application when plants are established and continue on a weekly schedule throughout season.
	<p><b>NOTE:</b> 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: 16 lb (6 lb metallic copper)                      Minimum retreatment interval (days): 7</p>		

## FIELD CROPS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>ALFALFA</b>	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.
	<p><b>NOTE:</b> Spray injury may occur with sensitive varieties such as Lahontan.                      Maximum use rate per acre per application: 1.33 lb (0.5 lb metallic copper)                      Maximum use rate per acre per year: 3 lb (1.12 lb metallic copper)                      Minimum retreatment interval (days): 30</p>		

## FIELD CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>PEANUT</b>	Cercospora Leaf Spot	1.0 to 2.0	<p>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.</p> <p>Treat at 7 day intervals during humid weather. Use higher rates when conditions favor disease development.</p>
	<p>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</p>		
<b>POTATO</b>	Early Blight & Late Blight	0.67 to 1.0 or 2.0 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 early blight and late blight may provide suppression of the Colorado Potato Beetle.
<p>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</p>			

## FIELD CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>SUGARBEET</b>	Cercospora Leaf Spot	1.33 to 3.33	Start spray when disease threatens and continue for 4 to 5 applications. Spray at 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		
<b>WHEAT, BARLEY, OATS</b>	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.
	Maximum use rate per acre per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 2.83 lb (1.06 lb metallic copper) Minimum retreatment interval (days): 10		

## TREE CROPS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
ALMOND, APRICOT, CHERRY, PLUM, PRUNE	Bacterial Blast ( <i>Pseudomonas</i> )	0.75	<b>ALMOND ONLY:</b> 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. <b>For CHERRIES</b> , where disease is severe, an additional 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.
<p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>• To avoid plant injury, Do not use above rates after full bloom.</li> <li>• In sensitive varieties of ALMONDS, such as Peerless, Mission, and Neplus slight leaf injury may occur from post-bloom spray.</li> </ul>			

*(continued)*

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>ALMOND, APRICOT, CHERRY, PLUM, PRUNE</b> <i>(continued)</i>	<p><b><i>Dormant, late dormant applications</i></b>                      Maximum use rate per acre per application: 8.0 lb (3.0 lb metallic copper)                      Minimum retreatment interval (days): 7</p> <p><b><i>Bloom/growing season applications</i></b>                      Maximum use rate per acre per application: 4.0 lb (1.5 lb metallic copper)                      Minimum retreatment interval (days): 5</p> <p><b><i>For all uses:</i></b>                      Do not exceed a total of 48 lb (18 lb metallic copper) per acre per year</p>		
	<b>APPLE</b>	Anthracnose, European Canker, Blossom Blast, Shoot Blast ( <i>Pseudomonas</i> )	8.0 to 10.5
	Fire Blight, Scab**	5.5 to 10.5	Make application as a full cover spray between silver-tip and green-tip. <b>NOTE:</b> Phytotoxicity may occur from late application. After green-tip apply at 2/3 pound per acre.
	Crown or Collar Rot	2.75 pounds in 100 gallons of water	Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in fall after harvest each year. <b>NOTE:</b> Do not use if soil pH is below 5.5 or copper toxicity may result.

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>APPLE</b> <i>(continued)</i>	<p><b>** Not registered for use in California</b></p> <p><b><i>Fall / late dormant application</i></b>                      Maximum use rate per acre per application: 10.5 lb (3.9 lb metallic copper)                      Maximum number of applications per year: 1</p> <p><b><i>Application between silver-tip and green-tip</i></b>                      Maximum use rate per acre per application: 10.5 lb (3.9 lb metallic copper)                      Maximum number of applications per year: 1</p> <p><b><i>Bloom and growing season applications</i></b>                      Maximum use rate per acre per application: 4.0 lb (1.5 lb metallic copper)                      Minimum retreatment interval (days): 5</p> <p><b><i>For all uses:</i></b>                      Do not exceed a total of 42.7 lb (16 b metallic copper) per acre per year</p>		

*(continued)*



## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>AVOCADO</b>	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 per application: 8.0 lb (3.0 lb metallic copper) Maximum use rate per acre per year: 50.4 lb (18.9 lb metallic copper) Minimum retreatment interval (days): 14		
<b>CITRUS</b>	Melanose, Scab, Algal Spot	2.75 to 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	2.67 to 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.

*(continued)*

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>CITRUS</b> <i>(continued)</i>	Citrus Canker (Suppression Only)	1.25 to 8.0	<b>General Recommendations:</b> 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.
			<b>Florida Specific Recommendations:</b> 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.

*(continued)*

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>CITRUS</b> <i>(continued)</i>	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.
	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.  <b>NOTE:</b> Areas where microjet or low volume irrigation hit the tree trunk may require retreatment due to wash off.
<p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>• Do not use this product on citrus seedlings grown in greenhouses or shadehouses.</li> <li>• <b>In California</b>, in areas subject to copper injury, add 1/3 to 1 pound of high quality lime per pound of this product.</li> </ul> <p>Maximum use rate per acre per application: 8.0 lb (3.0 lb metallic copper)            Maximum use rate per acre per year: 33.6 lb (12.6 lb metallic copper)            Minimum retreatment interval (days): 7</p>			

*(continued)*

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>CITRUS</b> <b>Field Nursery Grown</b>	Melanose, Scab, Greasy Spot, Pink Pitting, Brown Rot and Citrus Canker (Suppression Only)	2.67 to 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		
<b>FILBERT</b>	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 at 14 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: 48 lb (18 lb metallic copper) Minimum retreatment interval (days): 14		

*(continued)*

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>KIWIFRUIT</b>	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 per application: 2.0 lb (0.75 lb metallic copper) Maximum use rate per acre per year: 16.8 lb (6.3 lb metallic copper) Minimum retreatment interval (days): 30		
<b>MACADAMIA*</b>	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.
	Maximum use rate per acre per application: 6.0 lb (2.25 lb metallic copper) Maximum use rate per acre per year: 25.2 lb (9.4 lb metallic copper) Minimum retreatment interval (days): 7 <b>*Not registered for use in California</b>		
<b>OLIVE</b>	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 per application: 8.0 lb (3.0 lb metallic copper) Maximum use rate per acre per year: 48 lb (18 lb metallic copper) Minimum retreatment interval (days): 30		

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>PEACH &amp; NECTARINE</b>	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.
<p><b>NOTE:</b> Do not apply three weeks prior to harvest. Use only recommended rates. Spotting of leaves and defoliation may occur from use in cover sprays.</p> <p><b><i>Dormant, late dormant, up to pink bud</i></b>                      Maximum use rate per acre per application: 10.67 lb (4.0 lb metallic copper)                      Minimum retreatment interval (days): 7</p> <p><b><i>Bloom, growing season applications</i></b>                      Maximum use rate per acre per application: 4 lb (1.5 lb metallic copper)                      Minimum retreatment interval (days): 5</p> <p><b><i>For all uses:</i></b>                      Do not exceed a total of 48 lb (18 lb metallic copper) per acre per year.</p>			

*(continued)*

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>PEAR</b>	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.
	<p><b>NOTE:</b> Excessive dosages may cause fruit russet.</p> <p><b><i>Bloom, growing season applications</i></b>                      Maximum use rate per acre per application: 4.0 lb (1.5 lb metallic copper)                      Minimum retreatment interval (days): 5</p> <p><b><i>Fall, late dormant applications</i></b>                      Maximum use rate per acre per application: 10.67 lb (4.0 lb metallic copper)                      Maximum number of applications per season: 1</p> <p><b><i>For all uses:</i></b>                      Do not exceed a total of 42.7 lb (16 lb metallic copper) per acre per year.</p>		

*(continued)*

## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>PECAN</b>	Shuck Rot, Kernel Rot <i>(Phytophthora cactorum)</i> , Zonate Leaf Spot <i>(Cristulariella pyramidalis)</i> (Suppression Only)	1.33 to 2.67	Apply at 2 to 4 week intervals when kernel growth begins through shuck opening.  Apply in sufficient water to ensure thorough coverage.
	Maximum use rate per acre per application: 2.67 lb (1.0 lb metallic copper) Maximum use rate per acre per year: 16.8 lb (6.3 lb metallic copper) Minimum retreatment interval (days): 14		
<b>PISTACHIO</b>	Botrytis Blight, Botryosphaeria Panicle and Shoot Blight, Septoria Leaf Blight, Late Blight <i>(Alternaria 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 per application: 5.33 lb (2.0 lb metallic copper) Maximum use rate per acre per year: 22.4 lb (8.4 lb metallic copper) Minimum retreatment interval (days): 14		

*(continued)*



## TREE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>QUINCE</b>	Fire Blight	0.67	Apply at 5 day intervals throughout the bloom period. Apply in sufficient water to provide thorough coverage.
	<p><b><i>Bloom, growing season applications</i></b></p> <p>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</p>		
<b>WALNUT</b>	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.
	<p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>• When applied as a dilute spray, 1 pint of summer oil emulsion may be added per 100 gallons of spray.</li> <li>• Adequate control may not be obtained when copper tolerant species of <i>Xanthomonas</i> bacteria are present.</li> </ul> <p>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</p>		

## 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 per application: 2.67 lb (1.0 lb metallic copper) Maximum use rate per acre per year: 50.4 lb (18.9 lb metallic copper) Minimum retreatment interval (days): 7		
CACAO	Black Pod	1.33 to 5.67	Begin applications at the start of the rainy season and continue while infection conditions persist. Apply as often as every 14 to 21 days in high rainfall areas at rates varying 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 4.0 to 5.67 pounds per acre, according to disease pressure incidence and planting density.
	Maximum use rate per acre per application: 5.67 lb (2.13 lb metallic copper) Maximum use rate per acre per year: 42 lb (15.75 lb metallic copper) Minimum retreatment interval (days): 14		

## TROPICAL CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>COFFEE</b>	Coffee Berry Disease <i>(Collectotrichum coffeanum)</i>	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 <i>(Hemileia vastatrix)</i>	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 coffeicola)</i> Pink Disease <i>(Corticium salmonicolor)</i>	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		

*(continued)*

## TROPICAL CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>GUAVA</b>	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		
<b>LITCHI</b>	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		
<b>MAMEY SAPOTE</b>	Anthracnose, Algal Leaf Spot	4.0 to 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		

*(continued)*

## TROPICAL CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>MANGO</b> (Florida & Puerto Rico)	Anthracnose	5.33 to 6.67	Apply at 7 day intervals after fruit set until harvest.
	Maximum use rate per acre per application: 6.67 lb (2.5 lb metallic copper) Maximum use rate per acre per year: 128 lb (48 lb metallic copper) Minimum retreatment interval (days): 7		
<b>PAPAYA</b>	Anthracnose	2.0 to 6.67	Apply beginning before disease is expected to appear and repeat 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		
<b>PASSION FRUIT</b>	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		

*(continued)*

## TROPICAL CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
SUGAR APPLE (Annona)	Anthracnose	8.0	Apply beginning just prior to flowering and repeat weekly until just before harvest.
	Maximum use rate per acre per application: 8.0 lb (3.0 lb metallic copper) Maximum use rate per acre per year: 33.6 lb (12.6 lb metallic copper) Minimum retreatment interval (days): 7		

## VEGETABLE CROPS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>BEAN (Dry, Green)</b>	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 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		
<b>CARROT</b>	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 per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 13.3 lb (5 lb metallic copper) Minimum retreatment interval (days): 7		

*(continued)*

## VEGETABLE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>CELERY &amp; CELERIAC</b>	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 per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 14.1 lb (5.3 lb metallic copper) Minimum retreatment interval (days): 7		
<b>CRUCIFERS Broccoli, Brussels Sprout, Cabbage, Cauliflower, Kale, Collard Greens, Mustard Greens, and Turnip Greens</b>	Black Rot ( <i>Xanthomonas</i> ), Black Leaf Spot ( <i>Alternaria</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.
	<b>NOTE:</b> Reddening of older leaves may occur on broccoli at the higher rate and flecking of wrapper leaves may occur on cabbage. Maximum use rate per acre per application: 0.67 lb (0.25 lb metallic copper) Maximum use rate per acre per year: 7.07 lb (2.65 lb metallic copper) Minimum retreatment interval (days): 7		

*(continued)*



## VEGETABLE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>CUCURBITS</b> 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.
	<p><b>NOTE:</b> Crop injury may occur from application at shorter intervals. Discontinue use if injury occurs.</p> <p>Maximum use rate per acre per application: 1.33 lb (0.5 lb metallic copper)                      Maximum use rate per acre per year: 14 lb (5.25 lb metallic copper)                      Minimum retreatment interval (days): 5</p>		
<b>EGGPLANT (Except California)</b>	Alternaria Blight, Anthracnose, Phomopsis	1.33	Use before disease appears. Repeat at 7 to 10 day intervals.
	<p>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</p>		

*(continued)*

## VEGETABLE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>ENDIVE, ESCAROLE</b>	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 per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 21.3 lb (8 lb metallic copper) Minimum retreatment interval (days): 7		
<b>GARLIC, LEEK, ONION</b>	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 per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 16 lb (6 lb metallic copper) Minimum retreatment interval (days): 7		
<b>LETTUCE</b>	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 per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 21.3 lb (8 lb metallic copper) Minimum retreatment interval (days): 7		

*(continued)*

## VEGETABLE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>PEA</b>	Powdery Mildew	1.0 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 per application: 2.0 lb (0.75 lb metallic copper) Maximum use rate per acre per year: 10.5 lb (3.95 lb metallic copper) Minimum retreatment interval (days): 7		
<b>PEPPER</b>	Bacterial Spot	1.33 to 2.0	When disease threatens, apply in sufficient water for thorough coverage at 3 to 10 day intervals depending on disease severity.
	Maximum use rate per acre per application: 2.0 lb (0.75lb metallic copper) Maximum use rate per acre per year: 31.6 lb (11.85 lb metallic copper) Minimum retreatment interval (days): 3		

*(continued)*

## VEGETABLE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>SPINACH</b>	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.
	<p><b>NOTE:</b> Flecking may occur on spinach leaves.</p> <p>Maximum use rate per acre per application: 2.1 lb (0.79 lb metallic copper)                      Maximum use rate per acre per year: 10.5 lb (3.95 lb metallic copper)                      Minimum retreatment interval (days): 7</p>		
<b>TABLE BEET, BEET GREENS</b>	Cercospora Leaf Spot	1.33 to 2.67	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.
	<p>Maximum use rate per acre per application: 2.67 lb (1.0 lb metallic copper)                      Maximum use rate per acre per year: 21 lb (7.86 lb metallic copper)                      Minimum retreatment interval (days): 10</p>		

*(continued)*

## VEGETABLE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>TOMATO</b>	Early Blight, Late Blight	1.33 to 2.0 (fresh market)	When disease threatens, apply at 3 to 10 day intervals.
		1.4 (processing)	
	Bacterial Speck	1.33 (fresh market & processing)	Apply at 10 to 30 day intervals beginning when the disease threatens. Use more frequent applications when disease pressure is high.
	Bacterial Spot, Anthracnose, Gray Leaf Mold & Septoria Leaf Spot	1.33 to 2.67 (fresh market)	When disease threatens, apply at 3 to 10 day intervals. Use the higher rate and shorter retreatment interval when disease pressure is high.
		1.4 (processing)	

*(continued)*

## VEGETABLE CROPS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>TOMATO</b> <i>(continued)</i>	<b><i>Fresh Market Tomato</i></b> Maximum use rate per acre per application: 2.67 lb (1.0 lb metallic copper) Maximum use rate per acre per year: 21.3 lb (8 lb metallic copper) Minimum retreatment interval (days): 3		
	<b><i>Processing Tomato</i></b> Maximum use rate per acre per application: 1.4 lb (0.53 lb metallic copper) Maximum use rate per acre per year: 46.4 lb (17.4 lb metallic copper) Minimum retreatment interval (days): 3		
<b>WATERCRESS</b>	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.
	For applications made to watercress, production fields must be drained of water at least 24 hours prior to each application and water must not be reapplied to the field for a minimum of 24 hours following each application. Copper must not to be applied to watercress during the aquatic production phase.  Maximum use rate per acre per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 5.65 lb (2.12 lb metallic copper) Minimum retreatment interval (days): 7		

## MISCELLANEOUS

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>ATEMOYA</b>	Anthracnose	2.0	Apply 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: 33.6 lb (12.6 lb metallic copper) Minimum retreatment interval (days): 7		
<b>CARAMBOLA</b>	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		
<b>CHIVES</b>	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		

*(continued)*

## MISCELLANEOUS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>DILL</b>	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 per application: 1.75 lb (0.66 lb metallic copper) Maximum use rate per acre per year: 10.5 lb (3.95 lb metallic copper) Minimum retreatment interval (days): 7		
<b>DOUGLAS FIR</b>	Rhabdocline Needle Cast	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 per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 53.3 lb (20 lb metallic copper) Minimum retreatment interval (days): 21		

*(continued)*



## MISCELLANEOUS *(continued)*

CROP	DISEASE	PRODUCT RATE PER ACRE (pounds)	USE INSTRUCTIONS
<b>GINSENG</b>	Alternaria Leaf & Stem Blight	1.75	<p>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.</p> <p>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.</p>
	<p><b>NOTE:</b> Alternaria Leaf &amp; 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.</p> <p>Maximum use rate per acre per application: 1.75 lb (0.66 lb metallic copper)</p> <p>Maximum use rate per acre per year: 14 lb (5.25 lb metallic copper)</p> <p>Minimum retreatment interval (days): 7</p>		
<b>PARSLEY</b>	Bacterial Blight ( <i>Pseudomonas</i> spp.)	2.0	Apply when plants are first established in the field and repeat at 10 day intervals.
	<p>Maximum use rate per acre per application: 2.0 lb (0.75 lb metallic copper)</p> <p>Maximum use rate per acre per year: 5.33 lb (2.0 lb metallic copper)</p> <p>Minimum retreatment interval (days): 10</p>		

*(continued)*

**MISCELLANEOUS** *(continued)*

<b>CROP</b>	<b>DISEASE</b>	<b>PRODUCT RATE PER ACRE (pounds)</b>	<b>USE INSTRUCTIONS</b>
<b>PERSIMMON</b>	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 per application: 1.33 lb (0.5 lb metallic copper) Maximum use rate per acre per year: 16 lb (6 lb metallic copper) Minimum retreatment interval (days): 14		

## STORAGE AND DISPOSAL

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

**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 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.

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