

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

Date of Issuance:

55146-151

EPA Reg. Number:

02/26/2015

NOTI	CE	OF	P	ES	TIC	CIDE:
	* 7	-			. •	

X Registration Reregistration (under FIFRA, as amended) Term of Issuance: Unconditional

Name of Pesticide Product:

NUP-11050

Name and Address of Registrant (include ZIP Code):

Danielle Larochelle Nufarm Americas Inc. 4020 Aerial Center Pkwy, Suite 103 Morrisville, NC 27545

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

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

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

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:	Date:
Tompkish	02/26/2015
Tony Kish, Product Manager 22	
Fungicide Branch, Registration Division (7505P)	

EPA Form 8570-6

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 55146-151."
- 3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 07/31/2014
- Alternate CSF #1 dated 07/31/2014

If you have any questions, please contact Lindsay Roe at (703) 347-0506 or roe.lindsay@epa.gov.

[Enclosure]

# DP-11050 02/26/2015 Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the posticide registered under

ACCEPTED

and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 55146-151

[ Alternate Brand Name: Cuproxat FL Copper Fungicide ]

### FOR CONTROL OF LISTED DISEASES ON LISTED [AGRICULTURAL] CROPS, ORNAMENTAL PLANTS & TREES

**ACTIVE INGREDIENT:** 

055146-00RLR.20150225.NUP-11050\_Label\_New EP

OTHER INGREDIENTS:	TOTAL:	
Equivalent to 1.6 pounds per gallon or 15.2% metallic cop	per.	
	EACH OF CHILDREN	
CA	LUTION	
SEE INSIDE BOOKLET FOR FIRST	AID AND PRECAUTIONARY STATEMENTS	
	Exposure, Call CHEMTREC (800) 424-9300 cies Only, Call (877) 325-1840	
	1	
	Manufactured For NUFARM AMERICAS INC.	
EPA Reg. No. 55146-RLR EPA Est. No	AGT DIVISION 11901 S. Austin Avenue	
	Alsip, IL 60803 (800) 345-3330	<b>Nufarm</b>
[MADE IN AUSTRIA]		
NET CONTENTS: Gals. ( L)		
[Designation as "NONREFILLABLE" or "REFILLABI	LE" for containers > 5 GAL]	
[Grow a better tomorrow.]		
[Grow a better tomorrow.]		

• 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.	
• 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.	
<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing of Call a poison control center or doctor for treatment advice.</li> </ul>	eye.

#### **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 CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

#### All mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeve shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves

Remove and wash contaminated clothing before reuse. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. **DO NOT** reuse them.

#### **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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **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 washwaters or rinsate.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. READ ENTIRE LABEL BEFORE USING THIS PRODUCT.

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

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 1 70. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas. 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-sleeve shirt, long pants, shoes, socks, and chemical resistant gloves.

For Greenhouse use the restricted-entry interval may be reduced to 24 hours provided that the following conditions are met: For at least seven (7) days following the application of copper-containing products 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 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 for agricultural pesticides (40 CFR, Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**DO NOT** enter or allow others to enter until sprays have dried.

#### PRODUCT INFORMATION

Use this product as noted below. This product is adaptable to spraying from all types of spray equipment. Depending on the equipment used and the specific crop (amount of foliage to be covered), the volume applied per acre will differ. For best results, thorough coverage is essential. For dilute, high volume sprays: use from 25 to 100 gallons of water per acre (GPA) for most vegetable and row crops, 400 to 800 GPA for fruit orchards, and up to 1500 GPA as may be required for large citrus groves. For concentrate ground sprays, apply from 5 to 20 GPA for most field crops; 25 to 100 GPA for fruit and nut crops. For aerial spraying, 3 to 15 GPA are commonly used. No additional surfactants are needed.

Add this product slowly to a spray tank partially filled with water. Spreader-stickers, insecticides, nutrients, etc., should be added last. This product is compatible with many commercially formulated insecticides and fungicides. Since the number of combinations of pesticide mixtures is very large, it is advisable to check for compatibility and apply mixtures as soon as possible. Observe all cautions and limitations on labels of all products used in mixtures. The following specific instructions are based on general applications. The recommendations of State Agricultural Extension Services should be closely followed as to timing, frequency and number of sprays per season.

#### NOTES:

- Do not apply this product in a spray solution having a pH of less than 6.5 as phytotoxicity may occur.
- Do not apply to wet crops or if it is likely to rain before the spray is dry.

**SMALL VOLUME MIXTURES (< 100 gallons):** One-third (1/3) tablespoon (TBSP) or one (1) level teaspoon (TSP) of this product per gallon of water is equivalent to one (1) pint of this product per 100 gallons of water.

#### 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.

#### For Aerial Application:

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.

#### For Groundboom Application:

**DO NOT** apply with a nozzle height greater than 4 feet above the crop canopy.

#### **CHEMIGATION INSTRUCTIONS**

Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (sheet) roll, traveler, big gun, solid set, or hand move. **DO NOT** apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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 shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

# IF IRRIGATION SYSTEM IS CONNECTED TO A PUBLIC WATER SYSTEM, THE FOLLOWING SAFETY DEVICES MUST BE IN PLACE IN ADDITION TO THE REQUIREMENTS LISTED ABOVE:

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.

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.

**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 WHICH HAVE LOW pH CHEMICAL RESIDUE MAY ALSO RESULT IN CROP INJURY.

#### DIRECTIONS FOR CHEMIGATION USE

It is recommended that the pesticide supply tank be equipped for continuous agitation by either recirculation or a mechanical agitator.

**Mixing Instructions:** Fill the supply tank with approximately one half of the amount of water to be used for dilution. With agitation, add any emulsifiable concentrate to be used, including any oils. Agitate thoroughly. Next add any spreader-sticker or other adjuvant and agitate thoroughly. Then add this product and any other flowable. Agitate thoroughly. Finally, add any wettable powder or dry flowable and agitate thoroughly. With agitation, add the remainder of the water to be used for application. Continue agitation during application until supply tank is empty. Observe all precautions and limitations on the labels of all products used in the mixture.

**Application:** 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 being used. For moving systems, the pesticide should be applied continuously. In all cases, careful attention should be paid to thorough coverage of the crop during application.

**DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

**Important Notice:** Improper exposure of aluminum irrigation equipment to copper-based formulations may result in corrosion. Before applying this product by chemigation, contact your equipment supplier for any special restrictions or procedures.

# BERRIES, VINES AND HOPS

CROP	DISEASE	PRODUCT RATE PER ACRE (Pints)	USE INSTRUCTIONS	
BRAMBLES Blackberry, Santiam, Logan, Boycon, Marion	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, and Pseudomonas Blight	2.5 – 6.0	Apply delayed dormant spray after training in spring. Make fall spray application after harvest. Add 1 quart of crop oil per acre.	
Boysen, Marion, Aurora, Cascade, Chehalem and	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, and Yellow Rust	1.25 – 2.5	Apply when leaf buds begin to open and repeat when flower buds show white. Continue applications at 7 day intervals if needed. Add 1 quart of crop oil per acre.	
Thornless Evergreen	NOTE: Crop injury may occur if periods. Discontinue appli		under certain conditions such as hot or prolonged moist crop injury appear.	
		ear: 49.3 pints (6.	(0.75 gallon) (1.2 lb metallic copper) 2 gallons) (10.0 lb metallic copper)	
BLUEBERRY	Bacterial Canker	2.5 – 8.0	Make first application before the fall rains, preferably the first week in October and a second application four weeks later.	
	Fruit Rot, Phomopsis, Twig Blight	1.5 – 8.0	Dormant application. Begin applications when bloom buds begin to swell. Make additional applications at 7 to 14 day	
	- · · · · · · · · · · · · · · · · · · ·		intervals as needed before blooms open.	
	Maximum use rate per acre per application: 8 pints (1 gallon) (1.6 lb metallic copper) Maximum use rate per acre per year: 41.4 pints (5.2 gallons) (8.4 lb metallic copper) Minimum retreatment interval (days): 7			
CRANBERRY	Fruit Rot	5.0 – 10.0	Apply beginning in late bloom. One or two applications made at 7 to 14 day intervals may be required, depending on disease pressure.	
	Rose Bloom		Make three applications at 7 to 14 day intervals as soon as symptoms are observed.	
	Bacterial Stem Canker		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		Apply as a delayed dormant spray in the spring. Repeat at 7 to 14 day intervals as needed through prebloom.	
	Upright Dieback		Apply as a prebloom application. A second application can be made 7 to 14 days later if required.	
	Maximum use rate per acre per ap Maximum use rate per acre per ye Minimum retreatment interval (day	ear: 62.1 pints (7.8	nts (1.25 gallons) (2.0 lb metallic copper) 3 gallons) (12.6 lb metallic copper)	
CURRANT & GOOSEBERRY	Anthracnose, Leaf Spot	6.0 – 13.0	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 ap Maximum use rate per acre per ye Minimum retreatment interval (day	ear: 78.8 pints (9.9	s (1.6 gallons) (2.6 lb metallic copper) 9 gallons) (16.0 lb metallic copper)	

GRAPE	Black Rot, Phomopsis, Powdery Mildew, Downy Mildew	1.25 – 6.0	Begin application at bud break with additional applications made throughout the season at 3 day intervals if needed.	
		ate of this product	copper-sensitive varieties such as Concord, Delaware, and test for sensitivity when treating these varieties or	
		ear: 98.6 pints (12	s (0.75 gallon) (1.2 lb metallic copper) .3 gallons) (20.0 lb metallic copper)	
HOPS	Downy Mildew	1.25 to 2.25	Apply as a fungicide crown treatment after pruning, but before training. After training, additional fungicide treatments are needed at about 10 day intervals.	
	NOTE: Discontinue use 2 weeks	before harvest.		
	Maximum use rate per acre per ap Maximum use rate per acre per ye Minimum retreatment interval (day	ear: 13.1 pints (1.6	nts (0.28 gallon) (0.45 lb metallic copper) 3 gallons) (2.65 lb metallic copper)	
RASPBERRY	Leaf and Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, Pseudomonas Blight	2.5 – 6.0	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	1.25 – 2.5	Apply when leaf buds begin to open and repeat when flower buds show white. Make additional 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: 6.0 pints (0.75 gallon) (1.2 lb metallic copper) Maximum use rate per acre per year: 49.3 pints (6.2 gallons) (10.0 lb metallic copper) Minimum retreatment interval (days): 7			
STRAWBERRY	Leaf Spot & Leaf Blight	1.25 – 5.0	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: 5.0 pints (0.6 gallon) (1.0 lb metallic copper)  Maximum use rate per acre per year: 40.4 pints (5.1 gallons) (8.19 lb metallic copper)  Minimum retreatment interval (days): 7			

# **FIELD CROPS**

CROP	DISEASE	PRODUCT RATE PER ACRE (Pints)	USE INSTRUCTIONS
ALFALFA	Cercospora Leaf Spot, Leptosphaerulina Leaf Spot	1.25 – 2.5	Apply 10 to 14 days before each harvest or earlier if disease threatens. Repeat applications at 30 day intervals if needed.
	NOTE: Spray injury may occur w	ith sensitive varie	ties such as Lahontan.
	Maximum use rate per acre per aç Maximum use rate per acre per ye Minimum retreatment interval (day	ear: 5.52 pints (0.	ts (0.3 gallon) (0.5 lb metallic copper) 7 gallon) (1.1 lb metallic copper)

PEANUT	Cercospora Leaf Spot	1.25 – 3.9	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. Use the shorter retreatment interval during humid weather. Use higher rates when conditions favor disease development.
		ear: 23.4 pints (2.	uts (0.48 gallon) (0.79 lb metallic copper) 9 gallons) (4.74 lb metallic copper)
РОТАТО	Early Blight, Late Blight	0.75 – 6.0	Apply at 5 to 10 day intervals starting when plants are 6 inches high. Apply 0.75 to 1.75 pints per acre in those locations where disease is light and up to 2.0 to 6.0 pints per acre 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 ap Maximum use rate per acre per ye Minimum retreatment interval (day	ear: 123 pints (15	ts (0.75 gallon) (1.2 lb metallic copper) .4 gallons) (25 lb metallic copper)
SOYBEANS *	Alternaria Leaf Spot (Alternaria spp.)	3.9	Apply when mechanical injury, insect damage or another disease has occurred.
	Bacterial Blight (Pseudomonas syringae), Bacterial Pustule (Xanthomonas campestris)		Begin applications from first node through third node development on the main stem with fully developed leaves beginning with the unifoliolate leaves (V1 -V3 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7 to 10 day schedule when conditions continue to favor disease development.
	Brown Spot (Septoria glycines)		Begin applications at full bloom to when pods are 3/16 inch in length (R2-R3 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7 to 10 day schedule when conditions continue to favor disease development.
	Cercospora Leaf Blight (Cercospora kikuchii)		Begin applications when seed in a pod is 1/8 inch long through beginning pod maturity (R5-R7 growth stages). Continue on a 7 to 10 day schedule when conditions are favorable for disease development.
	Downy Mildew (Peronospora manchurica)		Begin applications when conditions favor disease development (high humidity and cool temperatures). Continue on a 7 to 10 day schedule if weather conditions remain cool and wet.
	Frogeye Leaf Spot (Cercospora sojina)		Begin applications when wet conditions exist. Continue on a 7 to 10 day schedule when conditions are favorable for disease development
	Pod & Stem Blight ( <i>Diaporthe phaseolorum</i> and <i>Phomopsis longicola</i> )		Begin applications when seed in a pod is 1/8 inch long through beginning pod maturity (R5-R7 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7 to 10 day schedule if conditions continue to favor disease development.
	Powdery Mildew ( <i>Microsphaera</i> <i>manshurica</i> )		Begin applications when conditions first favor disease development (cool humid nights and mild daytime temperatures). Continue on a 7 to 10 day schedule if weather conditions remain cool and wet.
		ear: 23.4 pints (2 /s): 7	nts (0.48 gallon) (0.79 lb metallic copper) .9 gallons) (4.7 lb metallic copper)

SUGARBEET	Cercospora Leaf Spot	1.25 – 6.0	Start spraying when disease threatens and continue for 4 to 5 applications. Spray every 10 to 14 days depending on weather conditions and depending on disease severity.
		ear: 38.7 pints (4.	ts (0.75 gallon) (1.2 lb metallic copper) 8 gallons) (7.86 lb metallic copper)
WHEAT, BARLEY, OATS	Septoria Leaf Blotch, Helminthosporium Spot Blotch	0.75 – 2.5	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: 2.5 pints (0.3 gallon) (0.5 lb metallic copper) Maximum use rate per acre per year : 5.22 pints (0.65 gallon) (1.05 lb metallic copper) Minimum retreatment interval (days): 10		

# **TREE CROPS**

CROP	DISEASE	PRODUCT RATE PER ACRE (Pints)	USE INSTRUCTIONS
ALMOND, APRICOT, CHERRY, PLUM,	Bacterial Blast ( <i>Pseudomonas</i> )	0.75	<b>ALMOND ONLY:</b> For Bacterial Blast control in sprinkler irrigated orchards or where disease is severe, apply postbloom at two week intervals or just prior to sprinkling.
PRUNE	Coryneum Blight [Shot Hole] (Stigmina carpophila), Bacterial Canker, Blossom Brown Rot, Dead Bud (Pseudomonas syringae), Bacterial Blast (Pseudomonas)	5.25 – 16.0	Use as a dormant application before foliage buds swell.  For CHERRIES: Where disease is severe, an additional application at leaf fall may be required.
	Coryneum Blight (Shot Hole) (Stigmina carpophila), Blossom Brown Rot	3.75 – 7.4	Early bloom (popcorn) application prior to full bloom. Repeat at 5 day intervals if needed.
	NOTES:  To avoid plant injury, DO NOT uesting in sensitive varieties of ALMON post-bloom spray.		er full bloom. rless, Mission, and Neplus, slight leaf injury may occur from
	Dormant, late dormant applications  Maximum use rate per acre per application: 16 pints (2 gallons) (3.25 lb metallic copper)  Maximum use rate per acre per year: 88.7 pints (11 gallons) (18 lb metallic copper)  Minimum retreatment interval (days): 7		
	Minimum retreatment interval (days): 7  Bloom/growing season applications  Maximum use rate per acre per application: 7.4 pints (0.9 gallon) (1.5 lb metallic copper)  Maximum use rate per acre per year: 88.7 pints (11 gallons) (18 lb metallic copper)  Minimum retreatment interval (days): 5		

APPLE	Anthracnose, European Canker, Blossom Blast, Shoot Blast (Pseudomonas)	8.0 – 20.0	Apply before fall rains.		
	Fire Blight, Scab *	5.25 – 15.0	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 pint per acre.		
	Crown Rot, Collar Rot	2.5 – 5.0	Mix 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.  NOTE: DO NOT use if soil pH is below 5.5 or copper		
	NOTE: Use on vellow varieties m	av cause discolor	toxicity may result.  ation. To avoid, pick before spraying.		
	Fall / late dormant applications	ay cause discolor	auon. To avoid, piek before spraying.		
	Maximum use rate per acre per Maximum number of application	ns: 1	oints (2.5 gallons) (4.06 lb metallic copper)		
	Maximum number of application	application for: 1	5 pints (1.88 gallons) (3.05 lb metallic copper)		
	Bloom and growing season applications  Maximum use rate per acre per application: 5 pints (0.6 gallon) (1 lb metallic copper)  Minimum retreatment interval (days): 5  For all uses:				
		. pints (9.9 gallon	s) (16 lb metallic copper) per acre per year		
	*Not registered for use in Califo	rnia	s) (16 lb metallic copper) per acre per year		
AVOCADO	Anthracnose, Blotch, Scab	5.25 – 15.5	Apply when bloom buds begin to swell. Continue application at 14 to 30 day intervals for five to six applications. Use higher rate when conditions favor disease.		
	Maximum use rate per acre per application: 15.5 pints (1.94 gallons) (3.15 lb metallic copper)  Maximum use rate per acre per year: 93.1 pints (11.6 gallons) (18.9 lb metallic copper)  Minimum retreatment interval (days): 14				
CITRUS	Melanose, Scab, Algal Spot	2.5 – 15.5	Apply, depending on disease severity, as a pre-bloom and post-bloom spray at 7 day intervals.		
	Greasy Spot, Pink Pitting	1.25 – 10.0	Apply in summer on expanded new flush. Repeat on subsequent flushes at 7 day intervals when disease pressure is severe.		
	Phytophthora Brown Rot, Septoria Spot	2.5 – 13.0	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.		
			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.		
	Citrus Canker (Suppression Only)	3.0 – 15.5	Spray flushes 7 to 14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications will be dependent on disease pressure. Under heavy disease pressure, each flush of new growth should be sprayed. Mnimum retreatment interval is 7 day.		
			Florida Specific Instructions: Begin applications to protect new leaf flushes. Repeat at 14 to 21 day intervals or more often if needed, depending on disease pressure and environmental conditions. The minimum retreatment interval is 7 days. 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 2.5 to 5.0 pints/ acre. Under conditions of wet weather and high disease pressure, higher rates may be required (8 to 15.5 pints/ acre).		

and every additional flush. Application to fruit should star after two-thrids of the petals have falten and be repeated a 7 to 21 day intervals.  Phytophthora Foot Rot  0.75 – 2.0 Mix with 1 gallon of water and paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prio 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: DO NOT use this product on citrus seedings grown in greenhouses or shadehouses.  Maximum use rate per acre per pear; esc.1 pints (7.8 gallons) (3.15 lb metallic copper)  Maximum use rate per acre per year: 25.1 pints (7.8 gallons) (12.6 lb metallic copper)  Minimum retreatment interval (days): 7  *Not registered for use in California  CITRUS  Filad nursery  Grown  Maximum use rate per acre per year: 25.1 pints (7.8 gallons) (12.6 lb metallic copper)  Minimum retreatment interval (days): 25  FilaBERT  Bacterial Blight  10.5 – 29.6 Apply as a postharvest 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.  Apply in sufficient water to obtain throrough coverage. Make initial application at budswell to budbreak. Additional spray should be made on a 14 day interval depending on disease severity or when conditions are conductory or disease development. Add 1 pint of superior type oil per 100 gallons of water.  NOTE: For use in Washington and Oregon only  Maximum use rate per acre per application: 29.6 pints (3.7 gallons) (6 lb metallic copper)  Maximum use rate per acre per year: 118 pints (14.75 gallons) (24 lb metallic copper)  Maximum use rate per acre per year: 118 pints (14.75 gallons) (24 lb metallic copper)  Maximum use rate per acre per year: 118 pints (14.75 gallons) (6 lb metallic copper)  Maximum use rate per acre per year: 130 pints (3.75 gallons) (6 lb metallic copper)  Maximum use rate per acre per year: 130 pints (3.75 gal						
Soil surface to the lowest scaffold timbs. Apply in May prior to summer rains and/or in the fall prior to wrapping trees to freeze protection. Treatment serves as protection for up to one year, but does not cure existing infections.    NOTE: DO NOT use this product on citrus seedlings grown in greenhouses or shadehouses. Maximum use rate per acre per year: 62.1 pints (7.8 gallons) (3.15 lb metallic copper) Maximum use rate per acre per year: 52.1 pints (7.8 gallons) (12.6 lb metallic copper) Minimum retreatment interval (days): 7   Not registered for use in California		Alternaria Brown Spot *	2.5 – 12.0	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 and be repeated at 7 to 21 day intervals.		
Maximum use rate per acre per application: 15.5 pints (1.9 gallons) (3.15 lb metallic copper) Maximum use rate per acre per year: 62.1 pints (7.9 gallons) (12.6 lb metallic copper) Minimum retreatment interval (days): 7  *Not registered for use in California  Melanose, Scab, Greasy Spot, Field nursery Grown  Melanose, Scab, Greasy Spot, Pink Pitting, Brown Rot and Citrus Canker (Suppression Only)  Maximum use rate per acre per application: 12.0 pints (1.5 gallons) (2.4 lb metallic copper) Maximum use rate per acre per application: 12.0 pints (7.8 gallons) (12.6 lb metallic copper) Maximum use rate per acre per application: 12.0 pints (7.8 gallons) (12.6 lb metallic copper) Maximum use rate per acre per application: 29.6 apply as a postharvest spray. In seasons of heavy rainfall  Bacterial Blight  10.5 – 29.6 Apply as a postharvest spray in seasons of heavy rainfall supply 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  NOTE: For use in Washington and Oregon only Maximum use rate per acre per year: 118 pints (14.75 gallons) (6 lb metallic copper) Maximum use rate per acre per year: 118 pints (14.75 gallons) (6 lb metallic copper) Minimum retreatment interval (days): 14  KIWIFRUIT*  Blossom Blight (Bud Rot), Leaf Spot (Phomopsis), Erwinia herbicola, Pseudomonas syringae, Pseudomonas gringae,		Phytophthora Foot Rot	0.75 – 2.0	Mix with 1 gallon 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.		
Maximum use rate per acre per year: 62.1 pints (7.8 gallons) (12.6 lb metallic copper)		NOTE: DO NOT use this product	on citrus seedling	s grown in greenhouses or shadehouses.		
CITRUS Field nursery Grown   Melanose, Scab, Greasy Spot, Pink Pitting, Brown Rot and Citrus Canker (Suppression Only)   2.5 – 12.0   Apply in 100 gallons of water at 28 day intervals.		Maximum use rate per acre per ye	ear : 62.1 pints (7.8			
Field nursery Grown  Filk Pitting, Brown Rot and Citrus Canker (Suppression Only)  Maximum use rate per acre per application: 12.0 pints (1.5 gallons) (2.4 lb metallic copper)  Maximum use rate per acre per year: 62.1 pints (7.8 gallons) (12.6 lb metallic copper)  Maximum use rate per acre per year: 62.1 pints (7.8 gallons) (12.6 lb metallic copper)  Minimum retreatment interval (days): 28  FILBERT  Bacterial Blight  10.5 – 29.6  Apply as a postharvest 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.  Apply in sufficient water to obtain thorough coverage. Make initial application at budswall to budbreak. Additional sprays should be made on a 14 day interval depending on disease severity or when conditions are conductive for diseased development. Add 1 pint of budbreak. Additional sprays should be made on a 14 day interval depending on disease severity or when conditions are conductive for diseased development. Add 1 pint of budbreak. Additional sprays should be made on a 14 day interval depending on disease severity or when conditions are conductive for diseased development. Add 1 pint of budbreak. Additional sprays should be made on a 14 day interval depending on diseases severity or when conditions are conductive for diseased development. Add 1 pint of superior type oil per 100 gallons of water. Thorough coverage is essential.  NOTE: For use in Washington and Oregon only Maximum use rate per acre per per application: 29.6 pints (3.7 gallons) (6 lb metallic copper) Minimum retreatment interval (days): 30  NOT apply at time of or after leaf emergence.  Maximum use rate per acre per year: 30 pints (3.75 gallons) (2. lb metallic copper) Minimum retreatment interval (days): 30  *Not registered for use in California  MACADAMIA  Blossom Blight & Raceme Blight, Anthracnose*  2.0 – 8.0  Apply, depending on disease pressure, in 50 to 300 gallons of water during peak raceme development and bloon periods. For a		*Not registered for use in Califo	rnia			
Maximum use rate per acre per year: 62.1 pints (7.8 gallons) (12.6 lb metallic copper)  Minimum retreatment interval (days): 28  Bacterial Blight  10.5 – 29.6  Apply as a postharvest 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  Eastern Filbert Blight  Apply in sufficient water to obtain thorough coverage. Make initial application at budswell to budbreak. Additional sprays should be made on a 14 day interval depending on disease severity or when conditions are conducive for disease development. Add 1 pint of superior type oil per 100 gallons of water. Thorough coverage is essential.  NOTE: For use in Washington and Oregon only Maximum use rate per acre per application: 29.6 pints (3.7 gallons) (6 lb metallic copper) Maximum use rate per acre per year: 118 pints (14.75 gallons) (24 lb metallic copper) Minimum retreatment interval (days): 14  KIWIFRUIT*  Blossom Blight (Bud Rot), Leaf Spot (Phomopsis), Erwinia herbicola, Pseudomonas stringae, Pseudomonas fluorescens Maximum use rate per acre per year: 30 pints (3.75 gallons) (2. lb metallic copper) Maximum use rate per acre per year: 30 pints (3.75 gallons) (6 lb metallic copper) Minimum retreatment interval (days): 30  *Not registered for use in California  MACADAMIA  Blossom Blight & Raceme Blight, Anthracnose*  2.0 – 8.0  Apply, depending on disease pressure, in 50 to 300 gallons of water during peak raceme development and bloon periods. For aerial application apply 3 to 6 pints per acre in 10 to 30 gallons of water.  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper) Maximum use rate per acre per application: 8.0 pints (6.8 gallons) (9.4 lb metallic copper)	Field nursery	Pink Pitting, Brown Rot and Citrus Canker	2.5 – 12.0	Apply in 100 gallons of water at 28 day intervals.		
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  Eastern Filbert Blight  Apply in sufficient water to obtain thorough coverage. Make initial application at budswell to budbreak. Additional sprays should be made on a 14 day interval depending on disease development. Add 1 pint of superior type oil per 100 gallons of water. Thorough coverage is essential.  NOTE: For use in Washington and Oregon only  Maximum use rate per acre per application: 29.6 pints (3.7 gallons) (6 lb metallic copper)  Maximum use rate per acre per year: 118 pints (14.75 gallons) (24 lb metallic copper)  Minimum retreatment interval (days): 14  KIWIFRUIT*  Blossom Blight (Bud Rot), Leaf Spot (Phomopsis), Erwinia herbicola, Pseudomonas stringae, Pseudomonas fluorescens  Maximum use rate per acre per application: 10.0 pints (1.25 gallons) (2. lb metallic copper)  Minimum retreatment interval (days): 30  *Not registered for use in California  MACADAMIA  Blossom Blight & Raceme Blight, Anthracnose*  2.0 – 8.0 Apply, depending on disease pressure, in 50 to 300 gallons of water during peak raceme development and bloon periods. For aerial application apply 3 to 6 pints per acre in 10 to 30 gallons of water.  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper)  Maximum use rate per acre per application: 8.0 pints (5.8 gallons) (9.4 lb metallic copper)		Maximum use rate per acre per ye	ear: 62.1 pints (7.8			
initial application at budswell to budbreak. Additional sprays should be made on a 14 day interval depending on disease severity or when conditions are conducive for disease development. Add 1 pint of superior type oil per 100 gallons of water. Thorough coverage is essential.    NOTE: For use in Washington and Oregon only Maximum use rate per acre per application: 29.6 pints (3.7 gallons) (6 lb metallic copper) Maximum use rate per acre per year: 118 pints (14.75 gallons) (24 lb metallic copper) Minimum retreatment interval (days): 14    KIWIFRUIT * Blossom Blight (Bud Rot), Leaf Spot (Phomopsis), Erwinia herbicola, Pseudomonas fluorescens   DO NOT apply at time of or after leaf emergence.	FILBERT	Bacterial Blight	10.5 – 29.6	Apply as a postharvest 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.		
Maximum use rate per acre per application: 29.6 pints (3.7 gallons) (6 lb metallic copper) Maximum use rate per acre per year : 118 pints (14.75 gallons) (24 lb metallic copper) Minimum retreatment interval (days): 14  KIWIFRUIT *  Blossom Blight (Bud Rot), Leaf Spot (Phomopsis), Erwinia herbicola, Pseudomonas syringae, Pseudomonas fluorescens  Maximum use rate per acre per application: 10.0 pints (1.25 gallons) (2. lb metallic copper) Maximum use rate per acre per year : 30 pints (3.75 gallons) (6 lb metallic copper) Minimum retreatment interval (days): 30  *Not registered for use in California  MACADAMIA  Blossom Blight & Raceme Blight, Anthracnose*  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper) Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper) Maximum use rate per acre per year : 46.5 pints (5.8 gallons) (9.4 lb metallic copper)		Eastern Filbert Blight		Apply in sufficient water to obtain thorough coverage. Make initial application at budswell to budbreak. Additional sprays should be made on a 14 day interval depending on disease severity or when conditions are conducive for disease development. Add 1 pint of superior type oil per 100 gallons of water. Thorough coverage is essential.		
Maximum use rate per acre per year: 118 pints (14.75 gallons) (24 lb metallic copper)  Minimum retreatment interval (days): 14  KIWIFRUIT*  Blossom Blight (Bud Rot), Leaf Spot (Phomopsis), Erwinia herbicola, Pseudomonas syringae, Pseudomonas fluorescens  Maximum use rate per acre per application: 10.0 pints (1.25 gallons) (2. lb metallic copper)  Maximum use rate per acre per application: 10.0 pints (1.25 gallons) (2. lb metallic copper)  Maximum use rate per acre per year: 30 pints (3.75 gallons) (6 lb metallic copper)  Minimum retreatment interval (days): 30  *Not registered for use in California  MACADAMIA  Blossom Blight & Raceme Blight, Anthracnose*  2.0 – 8.0  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 pints per acre in 10 to 30 gallons of water.  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper)  Maximum use rate per acre per year: 46.5 pints (5.8 gallons) (9.4 lb metallic copper)		NOTE: For use in Washington and Oregon only				
Spot (Phomopsis), Erwinia herbicola, Pseudomonas syringae, Pseudomonas fluorescens  Maximum use rate per acre per application: 10.0 pints (1.25 gallons) (2. lb metallic copper) Maximum use rate per acre per year : 30 pints (3.75 gallons) (6 lb metallic copper) Minimum retreatment interval (days): 30  *Not registered for use in California  MACADAMIA  Blossom Blight & Raceme Blight, Anthracnose*  2.0 – 8.0 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 pints per acre in 10 to 30 gallons of water.  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper) Maximum use rate per acre per year : 46.5 pints (5.8 gallons) (9.4 lb metallic copper)		Maximum use rate per acre per ye	ear: 118 pints (14.			
Maximum use rate per acre per year : 30 pints (3.75 gallons) (6 lb metallic copper)  Minimum retreatment interval (days): 30  *Not registered for use in California  Blossom Blight & Raceme Blight, Anthracnose*  2.0 – 8.0 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 pints per acre in 10 to 30 gallons of water.  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper) Maximum use rate per acre per year : 46.5 pints (5.8 gallons) (9.4 lb metallic copper)	KIWIFRUIT *	Spot (Phomopsis), Erwinia herbicola, Pseudomonas syringae,	5.0 – 10.0	1		
MACADAMIA  Blossom Blight & Raceme Blight, Anthracnose*  2.0 – 8.0  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 pints per acre in 10 to 30 gallons of water.  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper)  Maximum use rate per acre per year: 46.5 pints (5.8 gallons) (9.4 lb metallic copper)		Maximum use rate per acre per ye Minimum retreatment interval (day	ear : 30 pints (3.75 /s): 30			
Blight, Anthracnose*  of water during peak raceme development and bloom periods. For aerial application apply 3 to 6 pints per acre in 10 to 30 gallons of water.  Maximum use rate per acre per application: 8.0 pints (1.0 gallon) (1.6 lb metallic copper)  Maximum use rate per acre per year: 46.5 pints (5.8 gallons) (9.4 lb metallic copper)			ı	Apply depending on disease pressure in 50 to 200 college		
Maximum use rate per acre per year : 46.5 pints (5.8 gallons) (9.4 lb metallic copper)			2.0 - 0.0			
Minimum retreatment interval (days): 7	MACADAMIA			periods. For aerial application apply 3 to 6 pints per acre in		
*Not registered for use in California	MACADAMIA	Blight, Anthracnose*  Maximum use rate per acre per ap Maximum use rate per acre per ye	ear: 46.5 pints (5.8	periods. For aerial application apply 3 to 6 pints per acre in 10 to 30 gallons of water.  s (1.0 gallon) (1.6 lb metallic copper)		

OLIVE	Peacock Spot, Olive Knot	5.25 – 16.0	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 ap Maximum use rate per acre per ye Minimum retreatment interval (day	ar: 32 pints (4 ga	nts (2 gallons) (3.2 lb metallic copper) allons) (6.5 lb metallic copper)		
PEACH & NECTARINE	Leaf Curl, Coryneum Blight (Shot Hole), Bacterial Canker, Bacterial Blast ( <i>Pseudomonas</i> ), Bacterial Blight ( <i>Xanthomonas</i> )	5.25 – 20.0	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)	5.25 – 7.5	Apply as a full cover spray at pink bud. Application at this time affords some control of Leaf Curl and Coryneum Blight.		
	Bacterial Spot	0.75 – 5.0	Apply as a dormant spray.		
	NOTE: DO NOT apply three we defoliation may occur from	•	vest. Use only recommended rates. Spotting of leaves and rays.		
		application: 20 pi year: 88.7 pints (	ints (2.5 gallons) (4 lb metallic copper) (11.1 gallons) (18 lb metallic copper)		
PEAR	Fireblight	0.75	Apply at 5 day intervals throughout bloom period.		
	Pseudomonas Blight	8.0 – 20.0	Apply before fall rains or as a dormant spray before spring growth starts.		
	NOTE: Excessive dosages may	cause fruit russet.			
	Bloom, growing season applications  Maximum use rate per acre per application: 0.75 pint (0.15 lb metallic copper))  Minimum retreatment interval (days): 5				
	Fall, late dormant application  Maximum use rate per acre per application: 20 pints (2.5 gallons) (4.06 lb metallic copper)  Maximum of one application per year				
	For all uses:  Do not exceed a total of 78.8 pints (9.85 gallons) (16 lb metallic copper) per acre per year				
PECAN*	Shuck Rot, Kernel Rot (Phytophthora cactorum), Zonate Leaf Spot (Cristulariella pyramidalis)	3.75 – 5.0	Suppression Only: Apply at 14 to 28 day intervals when kernel growth begins through shuck opening. Apply in sufficient water to ensure thorough coverage.		
	Maximum use rate per acre per application: 5.0 pints (0.6 gallon) (1.0 lb metallic copper) Maximum use rate per acre per year: 41.4 pints (5.2 gallons) (8.4 lb metallic copper) Minimum retreatment interval (days): 14				
	*Not registered for use in Califo				
PISTACHIO	Botrytis Blight, Botryosphaeria Panicle and Shoot Blight, Septoria Leaf Blight, Late Blight (Alternaria alternata)	2.5 – 10.0	Apply beginning at budswell. 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: 10 pints (1.25 gallons) (2 lb metallic copper) Maximum use rate per acre per year: 41.4 pints (5.2 gallons) (8.4 lb metallic copper) Minimum retreatment interval (days):14				
QUINCE	Fire Blight	1.5	Apply at 5 day intervals throughout the bloom period. Apply in sufficient water to provide thorough coverage.		
	Maximum use rate per acre per application: 1.5 pints (0.3 lb metallic copper)  Maximum use rate per acre per year: 78.8 pints (9.9 gallons) (16 lb metallic copper)  Minimum retreatment interval (days): 5				

WALNUT	Walnut Blight	5.25 – 19.7	Apply first spray at early pre-bloom prior to or when catkins are partially expanded. Make additional applications during bloom and early nutlet stage at 7 day intervals if needed when frequent rainfall occurs.	
	<b>NOTE:</b> When applied as a dilute spray, 1 pint of Summer oil emulsion may be added per 100 gallons of spray. Adequate control may not be obtained when copper tolerant species of <i>Xanthamonas</i> bacteria are present.			
Maximum use rate per acre per application: 19.7 pints (2.5 ga Maximum use rate per acre per year : 158 pints (19.8 gallons) Minimum retreatment interval (days): 7		, .		

# **TROPICAL CROPS**

CROP	DISEASE	PRODUCT RATE PER ACRE (Pints)	USE INSTRUCTIONS		
BANANA	Sigatoka	1.25 – 2.5	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	2.5 – 5.17	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.		
		ear: 93.1 pints	pints (0.65 gallon) (1.05 lb metallic copper) (11.6 gallons) (18.9 lb metallic copper)		
CACAO	Black Pod	1.25 – 11.0	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 1.25 to 11.0 pints 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 8.0 to 11.0 pints per acre, according to disease pressure incidence and planting density.		
	Maximum use rate per acre per application: 11.0 pints (1.38 gallons) (2.2 lb metallic copper) Maximum use rate per acre per year: 77.6 pints (9.7 gallons) (15.75 lb metallic copper) Minimum retreatment interval (days): 14				
COFFEE	Coffee Berry Disease (Colletotrichum coffeanum)	3.75 – 10.3	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</i> syringae)	3.75 – 10.3	Begin spray program before onset of the long rains and continue throughout the rainy season at 14 to 21 day intervals. The critical time of spraying to control 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)	1.25 – 6.0	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 (Cercospora coffeicola) and Pink Disease (Corticium salmonicolor)	1.25 – 2.5	Apply as a concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.		
		ear : 62.1 pints (	pints (1.3 gallons) (2.1 lb metallic copper) 7.8 gallons) (12.6 lb metallic copper)		

GUAVA	Anthracnose, Red Algae	2.0 – 6.0	Apply beginning just prior to flowering and repeat weekly until just prior to harvest.	
		ear: 24.2 pints	oints (0.75 gallon) (1.2 lb metallic copper) (3.0 gallons) (4.92 lb metallic copper)	
LITCHI	Anthracnose	2.0 – 6.0	Apply beginning just prior to flowering and repeat weekly until just prior to harvest.	
		ear: 24.2 pints	oints (0.75 gallon) (1.2 lb metallic copper) (3.0 gallons) (4.92 lb metallic copper)	
MAMEY SAPOTE	Anthracnose, Algal Leaf Spot	3.75 – 8.0	Apply when conditions favor disease development. Repeat at 14 to 30 day intervals as needed.	
	Maximum use rate per acre per aç Maximum use rate per acre per ye Minimum retreatment interval (day	ear : 41.4 pints (	oints (1 gallon) (1.6 lb metallic copper) (5.2 gallons) (8.4 lb metallic copper)	
MANGO	Anthracnose	3.0 – 12.0	Apply monthly after fruit set until harvest.	
(Florida & Puerto Rico)	Maximum use rate per acre per application: 12.0 pints (1.5 gallons) (2.4 lb metallic copper) Maximum use rate per acre per year: 237 pints (29.6 gallons) (48 lb metallic copper) Minimum retreatment interval (days): 30			
PAPAYA	Anthracnose	2.5 – 12.0	Apply beginning before disease is expected to appear. Repeat at 10 to 14 day intervals or at 7 day intervals during periods of heavy rainfall. Use the higher rates when conditions favor disease. The addition of a suitable spreader-sticker may be desirable especially during periods of heavy rains.	
	Maximum use rate per acre per application: 12.0 pints (1.5 gallons) (2.4 lb metallic copper) Maximum use rate per acre per year: 104 pints (13 gallons) (21.2 lb metallic copper) Minimum retreatment interval (days): 7			
PASSION FRUIT	Anthracnose	3.75 – 10.0	Apply beginning just prior to flowering and repeat weekly.	
	Maximum use rate per acre per application: 10 pints (1.25 gallons) (2.0 lb metallic copper) Maximum use rate per acre per year: 46.5 pints (5.8 gallons) (9.4 lb metallic copper) Minimum retreatment interval (days): 7			
SUGAR APPLE Annona	Anthracnose	8.0 – 15.0	Apply beginning just prior to flowering and repeat weekly.	
	Maximum use rate per acre per application: 15 pints (1.9 gallons) (3.0 lb metallic copper) Maximum use rate per acre per year: 62.1 pints (7.8 gallons) (12.6 lb metallic copper) Minimum retreatment interval (days): 7			

# **VEGETABLE CROPS**

CROP	DISEASE	PRODUCT RATE PER ACRE (Pints)	USE INSTRUCTIONS	
BEAN Dry, Green	Brown Spot, Bacterial Blight (Halo & Common), Downy Mildew	0.75 – 3.9	For protective sprays, apply first application when plants are six inches high. Apply on 7 to 14 day schedule depending on local conditions. Adjust rates depending on disease severity.	
	Maximum use rate per acre per application: 3.9 pints (0.5 gallon) (0.8 lb metallic copper)  Maximum use rate per acre per year: 23.4 pints (2.9 gallons) (4.74 lb metallic copper)  Minimum retreatment interval (days): 7			
CARROT	Alternaria Leaf Spot, Carrot Blight (Cercospora)	1.25 – 2.5	When disease threatens apply at 7 to 14 day intervals depending on disease severity.	
	Maximum use rate per acre per application: 2.5 pints (0.3 gallon) (0.5 lb metallic copper)  Maximum use rate per acre per year: 24.6 pints (3.1 gallons) (5 lb metallic copper)  Minimum retreatment interval (days): 7			

CELERY & CELERIAC	Cercospora Early Blight, Septoria Late Blight, Bacterial Blight	1.25 – 2.5	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: 2.5 pints (0.3 gallon) (0.5 lb metallic copper)  Maximum use rate per acre per year: 26.1 pints (3.3 gallons) (5.3 lb metallic copper)  Minimum retreatment interval (days): 7				
CRUCIFERS Broccoli, Brussels Sprout, Cabbage, Cauliflower, Kale,	Black Rot ( <i>Xanthomonas</i> ), Black Leaf Spot ( <i>Alternaria</i> ), Downy Mildew	0.75 – 2.5	Apply at 7 to 10 day intervals after transplants are set in the field. Use higher rate when conditions favor disease.		
Collard Greens, Mustard Greens, and	NOTE: Reddening of older leaves may occur on Cal		on Broccoli at the higher rate and flecking of wrapper		
Turnip Greens		ear: 13.1 pints (	pints (0.3 gallon) (0.5 lb metallic copper) 1.6 gallons) ( 2.65 lb metallic copper)		
CUCURBITS Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash,	Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Powdery Mildew, Gummy Stem Blight, Watermelon Bacterial Fruit Blotch (Suppression)	0.75 – 4.0	Apply beginning when conditions are favorable for disease development and repeat at 5 to 7 day intervals, as needed depending on disease severity.		
and Watermelon	NOTE: Crop injury may occur fro	m application a	t shorter intervals. Discontinue use if injury occurs.		
		ar : 25.9 pints (	ts (0.5 gallon) (0.8 lb metallic copper) 3.2 gallons) (5.25 lb metallic copper)		
EGGPLANT	Alternaria Blight, Anthracnose, Phomopsis	1.25 – 2.5	Use before disease appears. Repeat at 7 to 10 day intervals.		
	Maximum use rate per acre per application: 2.5 pints (0.3 gallon) (0.5 lb metallic copper)  Maximum use rate per acre per year: 38.9 pints (4.9 gallons) (7.9 lb metallic copper)  Minimum retreatment interval (days): 7				
ENDIVE, ESCAROLE	Downy Mildew	0.75 – 2.25	Begin treatment when disease first appears and repeat every 5 to 10 days as needed to suppress disease.		
	Maximum use rate per acre per application: 2.25 pints (0.3 gallon) (0.46 lb metallic copper) Maximum use rate per acre per year: 39.4 pints (4.9 gallons) (8 lb metallic copper) Minimum retreatment interval (days): 5				
GARLIC, LEEK, ONION	Purple Blotch & Downy Mildew	1.25 – 4.9	Apply when plants are four to six inches high and repeat at 7 to 10 day intervals.		
ONION	Bacterial Blight	0.75 – 1.75			
	Maximum use rate per acre per application: 4.9 pints (0.6 gallon) (1 lb metallic copper) Maximum use rate per acre per year: 29.6 pints (3.7 gallons) (6 lb metallic copper) Minimum retreatment interval (days): 7				
LETTUCE	Downy Mildew	0.75 – 2.25	Begin treatment when disease first appears and repeat every 5 to 10 days as needed to suppress disease.		
	Maximum use rate per acre per application: 2.25 pints (0.3 gallon) (0.46 lb metallic copper) Maximum use rate per acre per year: 39.4 pints (4.9 gallons) (8 lb metallic copper) Minimum retreatment interval (days): 5				
PEA	Powdery Mildew	0.75 – 3.9	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: 3.9 pints (0.49 gallon) (0.8 lb metallic copper) Maximum use rate per acre per year: 19.5 pints (2.4 gallons) (3.95 lb metallic copper) Minimum retreatment interval (days): 7				

PEPPER	D	4.05 0.75	140 11 41 4 41 4		
Bell & Chili (non-bell)	Bacterial Spot	1.25 – 3.75	When disease threatens, apply in sufficient water for adequate coverage at 3 to 10 day intervals depending on disease severity.		
		ear : 58.4 pints (	pints (0.47 gallon) (0.76 lb metallic copper) 7.3 gallons) (11.85 lb metallic copper)		
SPINACH	Anthracnose, Cercospora Leaf Spot, Downy Mildew, White Rust, Blue Mold	1.25 – 3.75	Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.		
	NOTE: Flecking may occur on sp	oinach leaves.			
	Maximum use rate per acre per ap	oplication: 3.75 ear: 19.5 pints (	pints (0.47 gallon) (0.76 lb metallic copper) 2.4 gallons) (3.95 lb metallic copper)		
TABLE BEET, BEET GREENS	Cercospora Leaf Spot	1.25 – 6.0	Apply when conditions favor disease. Repeat treatment at 10 to 14 day intervals as needed. The addition of an agricultural spray oil is recommended.		
		ear: 38.7 pints (	oints (0.75 gallon) (1.2 lb metallic copper) 4.8 gallons) (7.86 lb metallic copper)		
TOMATO	Early Blight, Late Blight	1.25 – 6.0	Apply at 3 to 10 day intervals beginning when disease		
		(fresh	threatens. Use the higher rate and shorter retreatment interval when disease pressure is high.		
		market) *			
		(processing)			
	Bacterial Speck *	2.25	Apply at 10 to 30 day intervals beginning when the		
	Butterial Opeon	(fresh market &	disease threatens. Use more frequent applications when disease pressure is high.		
		processing)			
	Bacterial Spot, Anthracnose, Gray Leaf Mold & Septoria Leaf Spot	1.25 – 5.0 (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.		
		2.6			
		(processing)			
	Fresh Market Tomato  Maximum use rate per acre per application: 6.0 pints (0.75 gallon) (1.2 lb metallic copper)  Maximum use rate per acre per year: 39.4 pints (4.9 gallons) (8 lb metallic copper)  Minimum retreatment interval (days): 3				
	Processing Tomato  Maximum use rate per acre per application: 2.6 pints (0.32 gallon) (0.53 lb metallic copper)  Maximum use rate per acre per year: 85.7 pints (10.7 gallons) 17.4 lb metallic copper)  Minimum retreatment interval (days): 3				
	*Not registered for use in Califo	rnia			
WATERCRESS	Cercospora Leaf Spot	1.25 – 2.5	Apply when plants are established in the field. Repeat at 7-14 day intervals up to 4 applications per crop in at least 50 gallons of water per acre.		
	Maximum use rate per acre per application: 2.5 pints (0.3 gallon) (0.5 lb metallic copper) Maximum use rate per acre per year: 10.4 pints (1.3 gallons) (2.12 lb metallic copper) Minimum retreatment interval (days): 7				

#### SEED DRESSING

CROP	DISEASE	PRODUCT RATE per CWT of SEED (fl. oz.)	USE INSTRUCTIONS
RICE	Water Mold & Seed Rot (Achlya spp., Pythium spp.)	2.0 – 7.0	Use at the recommended rate for each 100 pounds of rice seed. For ease of handling and when using a seed treating machine, dilute with an equal amount of water. Maintain continuous agitation of the mixture throughout the operation. Consult State Agricultural Experiment Station regarding specific recommendations for your area.
WHEAT & BARLEY	Bacterial Leaf Blight (Pseudomonas syringae), Bacterial Leaf Streak (Xanthomonas translucens), Common Bunt (Tilletia caries)	2.0 – 3.5	Apply at the rate of formulated product per 100 pounds of seed. It should be diluted with equal parts of water before applying.

**DO NOT** use treated seed for food, feed or oil purposes. Care must be exercised in the handling of treated seed. **DO NOT** use augers used for handling treated seed to move seed for feed, food or oil processing. **DO NOT** re-use bags from treated seed to handle food or feed products.

Seeds treated with this product that are then packaged or bagged for future use must be suitably colored with an EPA approved dye, such as one of the dyes listed in 40 CFR Section 180.910 or Section 180.920 to prevent their subsequent inadvertent use as a food for man or feed for animals. Treated seed must contain the following labeling on the outside of the seed package or bag: "This package or bag contains seed that has been treated with copper hydroxide. **DO NOT** use for food, feed or oil purposes. Store away from feeds and foodstuffs. Persons opening this bag or package or loading/pouring the treated seed must wear a long-sleeved shirt, long pants, shoes and socks, chemical resistant gloves made of any waterproof material, and eye protection such as goggles or face shield."

#### **MISCELLANEOUS**

CROP	DISEASE	PRODUCT RATE PER ACRE (Pints)	USE INSTRUCTIONS			
ATEMOYA	Anthracnose	2.0 – 6.0	Apply just prior to flowering and repeat weekly until just prior to harvest.			
		ear : 62.1 pints (	nts (0.75 gallon) (1.2 lb metallic copper) 7.8 gallons) (12.6 lb metallic copper)			
CARAMBOLA	Anthracnose	3.75 – 10.0	Apply just prior to flowering and repeat weekly until just prior to harvest.			
	Maximum use rate per acre per ye	Maximum use rate per acre per application: 10.0 pints (1.25 gallons) (2 lb metallic copper) Maximum use rate per acre per year: 51.7 pints (6.5 gallons) (10.5 lb metallic copper) Minimum retreatment interval (days): 7				
CHIVES	Downy Mildew	1.25 – 2.5	Apply when plants are established in the field. Repeat at 7 to 10 day intervals as needed.			
	Maximum use rate per acre per application: 2.5 pints (0.3 gallon) (0.5 lb metallic copper) Maximum use rate per acre per year: 13.1 pints (1.6 gallons) (2.65 lb metallic copper) Minimum retreatment interval (days): 7					
DILL	Phoma Leaf Spot, Rhizoctonia Foliage Blight	1.25 – 3.5	Apply when plants are established in the field. Repeat at 7 to 10 day intervals as needed.			
	Maximum use rate per acre per ye	Maximum use rate per acre per application: 3.5 pints (0.44 gallon) (0.7 lb metallic copper) Maximum use rate per acre per year: 19.5 pints (2.44 gallons) (3.95 lb metallic copper) Minimum retreatment interval (days): 7				

GINSENG	Alternaria Leaf & Stem Blight	1.5 – 4.0	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/Cuproxat 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 2, 3, & 4 year old ginseng. Complete and thorough spray coverage is required for control.  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.
		ear : 25.9 pints (	ints (0.5 gallon) (0.8 lb metallic copper) 3.2 gallons) (5.25 lb metallic copper)
PARSLEY	Bacterial Blight ( <i>Pseudomonas</i> spp.)	2.0 – 4.0	Apply when plants are first established in the field and repeat at 10 day intervals.
	Maximum use rate per acre per ap Maximum use rate per acre per ye Minimum retreatment interval (day	ear : 9.86 pints (	ints (0.5 gallon) (0.8 lb metallic copper)) 1.2 gallons) (2 lb metallic copper)
PERSIMMON	Cercospora Leaf Spot	2.25	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 ap Maximum use rate per acre per ye Minimum retreatment interval (day	ar : 29.6 pints (	pints (0.3 gallon) (0.46 lb metallic copper) 3.7 gallons) (6 lb metallic copper)

# **TURFGRASS**\*

CROP	DISEASE	PRODUCT RATE	USE INSTRUCTIONS
TURFGRASS Algae Control (such as sodfarms, golf courses,	FOR SPOT TREATMENT ONLY: Apply in 1/2 gallon of water to control algae. This product may be used alone or in combination with other registered fungicides as a maintenance spray.		
industrial or municipal turf areas (including parks, playgrounds, athletic fields))	discontinue use. <b>DO N</b> Do not treat more than 8,000 ff	OT apply in sport apply in sport apply app	oon varietal differences. If injury occurs, ray solutions with a pH of less than 6.5. olication within any given acre. per year within any given acre (21 lb metallic

#### **CONIFERS**

For use on conifers, including Douglas Fir, Fir, Juniper, Leyland Cypress, Pine and Spruce, in Christmas tree plantings, forest stands and silviculture nurseries.

CROP	DISEASE	PRODUCT RATE PER ACRE (Pints)	USE INSTRUCTIONS
DOUGLAS FIR (Pseudotsuga menziesii)	Rhabdocline Needlecast	3.0 – 5.5	For control of foliar diseases apply as a thorough cover spray. Begin applications in the spring at the initiation of new growth and repeat at 14 to 28 days intervals or as
FIR (Abies spp.)	Needlecasts		needed. Use the higher rates when disease pressure is severe or when environmental conditions favor disease
JUNIPER (Juniperus spp.)	Anthracnose, Phomopsis Twig Dieback		development.
LYELAND CYPRESS (Cupressocyparis leylandii)	Cercospora Needle Blight		
PINE (Pinus spp.)	Needlecasts		
SPRUCE (Picea spp.)	Needlecasts		

Maximum use rate per acre per application: 5.5 pints (0.69 gallon) (1.1 lb metallic copper) Maximum use rate per acre per year : 98.6 pints (12.3 gallons) (20 lb metallic copper) Minimum retreatment interval (days): 14

**Lichens:** To control lichens on any of the conifers above, apply 5.5 pints per acre as a dormant application before new growth emerges in the spring. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.

Note: DO NOT buffer or combine with emulsifiable concentrate insecticides.

#### 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.

Three quarter (3/4) tablespoon (TBSP) of this product per 1,000 square feet is equivalent to 1 pint per acre. Begin application at first sign of disease and repeat if needed, according to the following use information:

CROP	DISEASE	PRODUCT RATE PER 1000 ft <sup>2</sup> (TBSP)	USE INSTRUCTIONS	
CUCUMBER	Angular Leaf Spot, Downy Mildew	0.75 – 2.5	Apply when plants begin to vine. Repeat at 5 to 7 day intervals.	
	Maximum use rate per application: 2.5 TBSP / 1000 ft <sup>2</sup> (0.69 lb metallic copper/Acre) Maximum use rate per year: 19 TBSP / 1000 ft <sup>2</sup> (0.6 pint / 1000 ft <sup>2</sup> ) (5.25 lb metallic copper/Acre) Minimum retreatment interval (days): 5			
EGGPLANT	Alternaria Blight, Anthracnose, Phomopsis	0.75 – 2.5	Apply at first sign of disease and repeat at 7 to 14 day intervals as needed.	
	Maximum use rate per application: 2.5 TBSP / 1000 ft <sup>2</sup> (0.69 lb metallic copper/Acre) Maximum use rate per year: 28.6 TBSP (0.89 pint / 1000 ft <sup>2</sup> ) (7.9 lb metallic copper/Acre) Minimum retreatment interval (days): 7			

PEPPER Bell & Chili (non- bell)	Bacterial Spot	0.75 – 2.8	Apply when conditions first favor disease and at 3 to 10 day intervals as needed.
	Maximum use rate per application: 2.8 TBSP / 1000 ft <sup>2</sup> (0.79 lb metallic copper/Acre) Maximum use rate per year: 42.9 TBSP (1.3 pints / 1000 ft <sup>2</sup> ) (11.85 lb metallic copper/Acre) Minimum retreatment interval (days): 3		
TOMATO Fresh market	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Grey Leaf Mold, Late Blight, Septoria Leaf Spot	0.75 – 5.8	Apply when conditions first favor disease and at 3 to 10 day intervals as needed.
	Maximum use rate per application: 5.8 TBSP / 1000 ft <sup>2</sup> (1.6 lb metallic copper/Acre) Maximum use rate per year: 28.9 TBSP (0.9 pint / 1000 ft <sup>2</sup> (8 lb metallic copper/Acre) Minimum retreatment interval (days): 3		00 ft <sup>2</sup> (1.6 lb metallic copper/Acre) / 1000 ft <sup>2</sup> (8 lb metallic copper/Acre)

**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	USE INSTRUCTIONS	
PECAN *	Ball Moss	Mix 10.0 pints in 100 gallons of water. Apply in spring after heavy rain, using 1-1/2 gallons of spray per foot of tree height. Make sure to wet tufts thoroughly. A second application may be required after 12 months. Do not make more than one application per year.	
	Zonate Leaf Spot (Cristulariella pyramidalis)	<b>Suppression Only</b> : Apply 3.75 to 5.0 pt/A at 14 to 28 day intervals when kernel growth begins through shuck opening. Apply in sufficient water to ensure thorough coverage. Minimum retreatment interval is 14 days.	
	Maximum use rate per acre per application: 10 pints (1.25 gallons) (2.0 lb metallic copper) Maximum use rate per acre per year: 41.4 pints (5.2 gallons) (8.4 lb metallic copper)		
	*Not registered for use in California		
LIVE OAK *	Ball Moss	Mix 10.0 pints in 100 gallons of water. Apply in spring after heavy rain, using 1-1/2 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 may be injurious to ornamentals grown under live oaks.		
Maximum use rate per acre per application: 10 pints (1.25 gallons DO NOT make more than one application per year.			
	*Not registered for use in California		
PHILODENDRON	Bacterial Leaf Spot	Mix 1.75 pints in 100 gallons of water. Apply weekly before disease appears.	
	Maximum use rate per acre per application: 10 pints (1.25 gallons) (2.0 lb metallic copper)  Maximum use rate per acre per year: 100 pints (12.5 gallons) (20 lb metallic copper)  Minimum retreatment interval (days): 7		
SYCAMORE	Anthracnose	Mix 1.25 to 4.0 pints in 100 gallons of water. 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 acre per application: 10 pints (1.25 gallons) (2.0 lb metallic copper) Maximum use rate per acre per year: 100 pints (12.5 gallons) (20 lb metallic copper) Minimum retreatment interval (days): 7		

FOR CONTROL OF BACTERIAL AND FUNGAL DISEASES ON FOLIAGE, FLOWERS, AND STEMS OF ORNAMENTALS grown in greenhouses, shadehouses, outdoor nurseries, and on ornamentals grown in indoor and outdoor landscapes:

Apply this product at 1.25 pints per 100 gallons as a full cover spray beginning at first sign of disease. Apply 10 - 20 gallons solution per 1000 ft<sup>2</sup>. Apply no more than 800 gallons solution per acre dilute per application (2.0 lb metallic copper per acre). **DO NOT** make more than 10 applications at these rates per year (maximum of 20.0 lb metallic copper per acre per year). **NOTE:** Compact flowers may take as little as 20 gallons solution per acre while large trees may take as much as 800 gallons solution per acre. 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 not possible to test every variety for sensitivity to this product. Prior to large-scale use, apply the specified rate of this product on a small area and check for symptoms of phytotoxicity in 7 to 10 days.

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

One-third (1/3) TBSP or 1 TSP of this product per gallon of water is equivalent to 1 pint 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 (Tulip), (Easter lily) (2)	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)
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
LANTANA	Bacterial Leaf Spot
LILAC	Cercospora Leaf Spot
LOBLOLLY BAY	Anthracnose
LOQUAT (Ornamental)	Entomosporium maculate, Colletotrichum spp.
MAGNOLIA (Southern)	Anthracnose, Bacterial Leaf Spot, Algal Leaf Spot
MAGNOLIA (Sweet bay)	Anthracnose
MAGNOLIA	Bacterial Leaf Spot
MANDEVILLAS	Anthracnose
MULBERRY (Contorted)	Bacterial Leaf Spot
MULBERRY (Weeping)	Bacterial Leaf Spot
NEPHYTIS	Bacterial Leaf Spot
OLEANDER	Bacterial Leaf Spot, Fungal Leaf Spot
OAK, LAUREL	Algal Leaf Spot (Cephaleuros virescens)
PACHYSANDRA	Volutella Leaf Blight
PANSY	Downy Mildew
PARLOR PALM	Bacterial Leaf Spot
PEAR (Flowering)	Fire Blight, Leaf Spot
PENTAS (Egyptian star)	Bacterial Leaf Spot (Xanthomonas)
PEONY	Botrytis Blight
PERIWINKLE	Phomopsis Stern Blight
PHLOX	Alternaria Leaf Spot
PHOTINA (Red tip, Red leaf)	Anthracnose, Entomosporium
PISTACHIO (5)	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
SNAPDRAGON	Anthracnose, Dieback, Downy Mildew

ORNAMENTAL	DISEASE
SPATHE FLOWER	Bacterial Leaf Spot
TATARIAN HONEYSUCKLE	Bacterial Leaf Spot
UMBRELLA TREE	Bacterial Leaf Spot
VERBENA	Xanthomonas Leaf Spot
VIBURNUM	Anthracnose
WASHINGTON PALM	Pestalotia Leaf Spot
WEEPING FIG	Bacterial Leaf Spot
WEEPING WILLOW	Bacterial Leaf Spot
YUCCA (Adam's needle)	Cercospora & Septoria Leaf Spots

- (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 2.0 to 5.75 pints of this product in 20 to 100 gallons of water per acre. Do not apply more than 100 pints product (20 lb metallic copper) per acre per year. The minimum retreatment interval is 7 days.
- (3) Hibiscus **DO NOT** apply to plants in flower.
- (4) For India Hawthorn use 1.25 to 5.0 pints per 100 gallons or 1/2 to 1-1/3 tablespoons per gallon. Do not apply more than 100 pints product (20 lb metallic copper) per acre per year. The retreatment interval is 7 days.
- (5) For bearing trees that will produce harvestable pistachios, the maximum annual rate is 41.4 pints (5.2 gallons) of product (equivalent to 8.4 lb metallic copper) per acre; the minimum retreatment interval is 14 days.

### 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:**

[Note to Reviewer: The following statement will be included on all Final Printed Labels bearing multiple Container Handling statements] "NOTE: This product is available in multiple containers. Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container handling instructions below that apply to your container type/size."

#### [Nonrefillable Containers 5 Gallons 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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 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 5 gallons]

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure 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 1/4 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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. 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.

#### [Refillable containers larger than 5 gallons]

**Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

#### LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations of liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

(RV022515)

[ Cuproxat is a registered trademark of Nufarm GmbH & Co KG. Inc. ]

All [other] trademarks that appear on this label which are not owned by Nufarm Americas Inc. or its subsidiaries are the property of their respective owners.