NU-COP® 50DF

FUNGICIDE/BACTERICIDE

ACTIVE INGREDIENT:

Copper Hydroxide*	
OTHER INGREDIENTS:	<u>23.23%</u>
TOTAL:	100 00%

(*Metallic Copper Equivalent - 50%)

*CAS No. 20427-59-2

IF IN EYES:	
	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then
	continue rinsing eye.
	Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	 Call a poison control center or doctor immediately for treatment advice.
	 Have person sip a glass of water if able to swallow.
	 Do not induce vomiting unless told to do so by the poison control center or doctor.
	 Do not give anything by mouth to an unconscious person.
IF ON SKIN OR	Take off contaminated clothing.
CLOTHING:	• Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air.
	• If person is not breathing, call 911 or an ambulance, then give
	artificial respiration, preferably mouth-to-mouth, if possible.
	• Call a poison control center or doctor for further treatment
	advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate use of gastric lavage.

SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 45002-4 EPA Est. No. 45002-MEX-02

Manufactured For:

ALBAUGH, LLC 1525 NE 36th Street Ankeny, IA 50021

AD020414-1

KEEP OUT OF REACH OF CHILDREN DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)





FUNGICIDE

SPECIMEN LABEL

PRECAUTIONARY STATEMENTS **DANGER**

Hazards To Humans And Domestic Animals

Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing dust. Wear protective eye wear (goggles, safety glasses, face shield), long sleeved shirt, long pants, shoes, socks, and chemical resistant gloves (such as made out of any waterproof material, selection category A).

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, PVC and viton. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

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

- 1. Long-sleeved shirt and long pants
- 2. Chemical resistant gloves made of any waterproof material
- 3. Shoes plus socks
- 4. Protective eyewear such as face shield or goggles

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

USER SAFETY RECOMMENDATIONS

Users should:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and change into clean clothing.
- 3. 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.

ENGINEERING CONTROL 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.

ENVIRONMENTAL HAZARDS

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

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

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

2 Product of Mexico

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval (REI). 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 in a manner they can understand.

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

- Coveralls
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

For greenhouse use the restricted entry interval (REI) is 24 hours.

For at least seven 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 conditions 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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, secure, dry area in original container.

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

CONTAINER DISPOSAL: Nonrefillable container. Do not resuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available. Dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

PRODUCT INSTRUCTIONS

NU-COP® 50 DF may be applied by Air, or by Dilute or Concentrated Ground Sprayers, or Chemigation on crops and at rates given on this label unless specifically prohibited for that crop use. When selecting a use rate for NU-COP® 50 DF, do not apply less than the labeled minimum amount. Under heavy disease pressure or when conditions favor such, use the higher rate and shorter spray intervals specified for each crop. Use the higher rates for large mature tree crops. The per acre use rate is applicable for both dilute and concentrate spraying.

Sufficient spray volume and spray pressure are essential to thoroughly penetrate the plant canopy and give thorough spray coverage. On crops sensitive to copper fungicides use the higher volumes of spray water per acre. When making a concentrate or aerial application without specific experience, it is advisable to test for crop tolerance prior to full scale use.

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

When using adjuvants or other pesticides in combination with this product, always observe the precautionary statements on the product's label and required days before harvest. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Sprays of NU-COP® 50 DF may be applied up to 24 hours preharvest due to REI for Worker Protection Standard. Before mixing with other products in spray tank, be sure that products are compatible. If compatibility is in question, use the compatibility jar test before mixing a whole tank.

NU-COP® 50 DF should not be applied in spray water having a pH of less than 6.5 as phytotoxicity may result. Use a buffering agent to increase the pH to 6.5-7.0 if your water source is below 6.5. Also avoid using water having a pH of greater than 9.0 as effectiveness may be reduced. Environmental conditions such as extended periods of wet weather, acid rain, etc. which alter the pH of the leaf surface may affect the performance of NU-COP® 50 DF resulting in possible phytotoxicity or loss of effectiveness.

Agricultural chemicals may perform in an unpredictable manner when tank mixed, especially where several products are involved. Reduced effect on pests or crop injury may occur. Unless recommended on this label or by state/local expert, it is advisable to test for compatibility and tolerance to crop injury prior to full scale commercial utilization of a new tank mix or tank mixing should not be undertaken.

This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray cars, houses, lawn furniture, or other metal surfaces.

MIXING INSTRUCTIONS FOR SPRAY APPLICATION

Fill the spray tank three-fourths to four-fifths full with clean water. Start agitation (**NOTE:** Proper agitation creates a rippling or rolling action on the liquid surface). Add NU-COP® 50 DF at the recommended rate.

Mix thoroughly and then add enough water to fill spray tank. Maintain sufficient agitation during mixing and during application of sprays to ensure a uniform spray mixture. When tank mixing with other products, follow the mixing sequence below: (1) micronutrients and fertilizers, (2) wettable powders, dry flowables, and water dispersible granules, (3) liquid flowables, (4) emulsifiable concentrates, and (5) adjuvants. Before adding the second pesticide, be sure that the prior product is well mixed and suspended before adding the next ingredient.

MINIMUM RECOMMENDED SPRAY VOLUME IN GALLONS PER ACRE (GPA)

A full dilute spray on tree crops means the maximum amount of spray when uniformly applied that an acre of such trees will hold to the point that excess spray begins to drip off. Thus the dilute spray volume per acre will depend on tree size and leaf surface per acre. The following listed dilute spray volumes is the volume that will generally provide such coverage on average size of full leafed trees. A concentrate spray is a spray applied in less volumes than a dilute. The extent of the concentration varies by equipment used. Thus the following spray volumes for a concentrated spray are the minimum volumes recommended per acre.

Use NU-COP® 50 DF as noted below unless indicated otherwise in the specific crop directions. NU-COP® 50 DF is adaptable to spraying from aircraft and ground spraying equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. Refer to recommended volumes below:

	Aerial (gallons of water/A)	Ground (gallons of water/A)	
		Dilute	Concentrate
Vegetables and Field Crops	3	20	-
Small Fruits	5	150	50
Vines	5	150	50
Fruit and Nut Trees*	10	400	50
Citrus	10	800	100 (20 FL)**

^{*}On young fruit trees, use a minimum of 1 gallon spray per acre.

CHEMIGATION INSTRUCTIONS

Do not apply this product through any irrigation system using aluminum parts or components as damage to the system may occur. Such application is prohibited regardless of whether the irrigation system is flushed with water after use of this product.

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation system(s) which contain no aluminum parts or components. Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness 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.

- A. Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side (Wheel) Roll Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank or injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until the product has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.
- B. Solid Set and Hand Move Irrigation Equipment: Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of product for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that the product will remain in suspension during the injection cycle. This product can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until pesticide is cleared from last sprinkler head.

SAFETY DEVICES

- (1) The systems designated above must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- (2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

^{**}Pesticide application equipment such as Curtec or other similar sprayers which are capable of obtaining thorough coverage at low volumes may be used at as low as 20 GPA of spray volume.

- (3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- (4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- (5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- (6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- (7) Do not apply when wind speed favors drift beyond the area intended for treatment.

SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water systems means a system for the provision to the public of piped water for human consumption if such a 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.

For additional instructions on safety precautions refer to statements (2), (3), (4), (6), and (7) in the section on **SAFETY DEVICES**.

POSTING INSTRUCTIONS

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

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. This sign is in addition to any sign posted to comply with the Worker Protection Standard. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of material to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words **KEEP OUT**, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word **STOP**. Below the symbol shall be the words **PESTICIDES IN IRRIGATION WATER**.

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 pesticidal 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 when 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 - 10 mph), and there are no sensitive areas within 250 feet downwind.

Temperature Inversion

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 inversion or stable atmospheric conditions.

Other State and Local Requirements

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

Equipment

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

For Aerial Application:

- The boom height 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 the displacement at the up and downwind edge of the application area by adjusting the path of the wind upwind.

For Groundboom Application:

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

CROPS

The following specific instructions are based on general application procedures. The recommendations of the State Agricultural Extension Service should be closely followed as to timing, frequency and number of sprays per season.

FROST INJURY PROTECTION

Bacterial Ice nucleation inhibitor – Application of NU-COP® 50 DF made to all crops listed on this label at rates and stages of growth indicated on this label at least 24 hours prior to anticipated frost conditions will afford control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola*, and *Pseudomonas fluorescens*) and may thereby provide some protection against light frost. The degree of frost protection will vary with weather conditions and other factors. Not recommended for those geographical areas where weather conditions favor severe frost.

ALFALFA				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM Retreatment Interval	COMMENT	
Cercospora & Leptosphaerulina	1.0 (0.5 lbs of metallic	30 Days	Apply 10 to 14 days before each harvest or earlier if disease threatens.	
Leaf Spots equivalent)		Apply with ground or aerial equipment.		
			Spray injury may occur with sensitive varieties such as Lahontan.	

RESTRICTIONS

Maximum single application rate is 1.0 lb/A (0.5 lbs metallic copper equivalent) Maximum annual application rate is 2.0 lbs/A (1.0 lbs metallic copper equivalent)

	ALMONDS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Dormant and Late	8.0 - 16.0	7	Use at dormant to early pink bud.		
Dormant to Pink Bud Season: Bacterial Blast* (Pseudomonas) Coryneum Blight (Shot hole)**	(4.0 – 8.0 lbs of metallic equivalent)		For blast control in sprinkler irrigated orchards or where disease is severe, apply 2 – 4 sprays or as many as required at 1.0 – 3.0 lbs per acre at 2 week post-bloom intervals or just before sprinkling. Slight leaf injury may occur from post-bloom spray.		
Bloom/Growing Season:	3.0 (1.5 lbs of metallic	5	Use during the early bloom stage (popcorn). A second application in late dormant before foliage buds		
Coryneum Blight Blossom Brown Rot	equivalent)		swell may be necessary when frequent rainfall occurs. To avoid plant injury, do not use after full bloom.		

^{*}Use a minimum of 12 lbs of product/Acre in California

Maximum single dormant application rate is 16.0 lbs/A (8.0 lbs. metallic copper equivalent)
Maximum single bloom/growing application rate is 3.0 lbs/A (1.5 lbs. metallic copper equivalent)
Maximum annual application rate is 36.0 lbs/A (18.0 lbs metallic copper equivalent)

	APRICOTS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Dormant, Late Dormant,	12.0 – 16.0		Apply before fall rains.		
Up to Pink Bud: Anthracnose	(6.0 – 8.0 lbs of metallic equivalent)	application allowed per season	Use the higher rates when conditions favor disease.		
Dead Bud <i>(Pseudomonas syringae)</i> Coryneum Blight European Canker	(In California apply 12 lbs/acre)		Use on yellow varieties may cause discoloration. To avoid, pick before spraying.		
Bloom, Growing Season:	2.0 - 3.0	5	Apply at popcorn to full bloom as a full cover		
Coryneum Blight (Shot Hole)	(1.0 – 1.5 lbs of		spray.		
Blossom Brown Rot	metallic equivalent)		To avoid spray injury, do not apply after full bloom.		

RESTRICTIONS

Maximum single dormant application rate is 16.0 lbs/A (8.0 lbs. metallic copper equivalent)
Maximum single bloom/growing application rate is 3.0 lbs/A (1.5 lbs. metallic copper equivalent)
Maximum annual application rate is 36.0 lbs/A (18.0 lbs metallic copper equivalent)

	AVOCADOS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Anthracnose, Blotch, Scab	4.0 – 6.3 (2.0 – 3.15 lbs of metallic equivalent)		Apply when bloom buds begin to swell. Continue application at 14 – 28 day intervals for 5 to 6 applications. Use higher rate when conditions favor disease.	

RESTRICTIONS

Maximum single application rate is 6.3 lbs/A (3.15 lbs metallic copper equivalent) Maximum annual application rate is 37.8 lbs/A (18.9 lbs metallic copper equivalent)

^{**}Do Not apply more than 12 lbs of product/Acre in California

	BANANAS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Sigatoka (black and yellow)		7	Apply by air at 2.1 lbs. per acre in 3 gallons of water containing 0.5 gallon agricultural oil.		
	2.1		Apply on a 7 – 14 day schedule throughout the wet season.		
	(1.05 lbs of metallic		Apply at 14 – 21 day intervals during dry periods.		
Black Pitting	equivalent)	7	Dilute in 50 – 100 gallons of water and apply directly to the fruit stem and include the basal portion of the leaf crown.		
			Apply during the first and second weeks after emergence.		

Maximum single application rate is 2.1 lbs/A (1.05 lbs metallic copper equivalent) Maximum annual application rate is 37.8 lbs/A (18.9 lbs metallic copper equivalent)

	BEANS (Dry, Green)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Bacterial Blight (Halo & Common)	1.0 - 1.5 (0.5 - 0.75 lbs of		For protective sprays apply first application when plants are five to six inches high.	
Brown spot	metallic equivalent)		Apply on 7 – 14 day schedule depending on local conditions.	
			Use higher rate for more severe disease pressure.	

RESTRICTIONS

Maximum single application rate is 1.5 lbs/A (0.75 lbs. metallic copper equivalent) Maximum annual application rate is 9.0 lbs/A (4.5 lbs metallic copper equivalent)

BRAMBLES (Aurora, Blackberry, Boysen, Cascades, Chehalems, Dewberry, Logan, Marion, Raspberry, Santiam, & Thornless Evergreens)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
	4.0	7	Make fall spray application after harvest.
Anthracnose,	(2.0 lbs of metallic equivalent)		Apply delayed dormant spray after pruning/training in spring.
Leaf & Cane Spot, Purple Blotch, Yellow Rust	2.0 (1.0 lbs of metallic	7	Apply when leaf buds begin to open and repeat when flower buds show white.
	equivalent)		NOTE: Crop injury may occur if applied to foliage under hot or moist environmental conditions.
			Discontinue applications if injury noted.

RESTRICTIONS

Maximum single application rate is 4.0 lbs/A (2.0 lbs metallic copper equivalent)
Maximum annual application rate is 20.0 lbs/A (10.0 lbs metallic copper equivalent)

	BLUEBERRIES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Bacterial Canker	2.0 – 4.2 (1.0 – 2.1 lbs of metallic equivalent)		Make first application before the fall rains, preferably the first week in October and a second application 4 weeks later. Use higher rate when conditions favor disease.	

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent)
Maximum annual application rate is 16.8 lbs/A (8.4 lbs metallic copper equivalent)

	CACAO			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Black Pod	3.0 – 4.5 (1.5 – 2.25 lbs of metallic equivalent)	14	Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 – 21 days in high rainfall areas at varying rates per acre depending on disease severity. For drier areas where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 2 – 4 lbs per acre, according to disease incidence and planting density.	

RESTRICTIONS

Maximum single application rate is 4.5 lbs/A (2.25 lbs metallic copper equivalent)
Maximum annual application rate is 31.5 lbs/A (15.75 lbs metallic copper equivalent)

	CARAMBOLA					
DISEASE APPLICATION RATE (lbs of product/Acre) MINIMUM DAYS RETREATMENT INTERVAL			COMMENT			
Anthracnose	4.2 (2.1 lbs of metallic equivalent)		Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.			

RESTRICTIONS

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent) Maximum annual application rate is 21.0 lbs/A (10.5 lbs metallic copper equivalent)

	CARROTS					
DISEASE APPLICATION RATE (Ibs of product/Acre) MINIMUM DAYS RETREATMENT INTERVAL		RETREATMENT	COMMENT			
Carrot Blight (Cercospora)	2.0 (1.0 lbs of metallic equivalent)		Begin application when disease first threatens and repeat at 7 to 14 day intervals as needed depending on disease severity.			

RESTRICTIONS

Maximum single application rate is 2.0 lbs/A (1.0 lbs metallic copper equivalent) Maximum annual application rate is 10.0 lbs/A (5.0 lbs metallic copper equivalent)

CELERY & CELERIAC				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Early, Late & Bacterial Blights	2.0 (1.0 lbs of metallic equivalent)	7	Apply as soon as plants are first established in the field, then every 7 days or longer depending on severity and weather.	

Maximum single application rate is 2.0 lbs/A (1.0 lbs metallic copper equivalent) Maximum annual application rate is 10.0 lbs/A (5.0 lbs metallic copper equivalent)

CEREAL GRAINS (Barley, Millet, Oat, Rye, Sorghum, Wheat)					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Septoria Leaf Blotch Helminthosporium Spot Blotch	1.0 (0.5 lbs of metallic equivalent)	10	Make first application at early heading and follow with second application 10 days later.		

RESTRICTIONS

Maximum single application rate is 1.0 lb/A (0.50 lbs metallic copper equivalent) Maximum annual application rate is 2.0 lbs/A (1.0 lbs metallic copper equivalent)

	CHERRY				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Dormant, Late Dormant, Up to Pink Bud: Anthracnose Dead Bud (Pseudomonas syringae) Coryneum Blight European Canker	8.0 – 16.0 (4.0 – 8.0 lbs of metallic equivalent) (Do not apply more than 12 lbs/Acre in California)		In orchards where the disease is severe a spray should also be applied shortly after harvest.		
Bloom & Growing Season: Brown Rot Blossom	2.0 – 3.0 (1.0 – 1.5 lbs of metallic equivalent)	5	Apply at popcorn and full bloom.		

RESTRICTIONS

Maximum single dormant season application rate is 16.0 lbs/A (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 3.0 lbs/A (1.5 lbs metallic copper equivalent) Maximum annual application rate is 36.0 lbs/A (18.0 lbs metallic copper equivalent)

	CHIVES				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Downy Mildew	1.0 (0.5 lbs of metallic equivalent)	7	Begin applications when plants are established in the field. Repeat applications every 7 – 10 days as dictated by disease conditions.		

RESTRICTIONS

Maximum single application rate is 1.0 lb/A (0.5 lbs metallic copper equivalent) Maximum annual application rate is 5.0 lbs/A (2.5 lbs metallic copper equivalent)

	CITRUS (Grapefruit, Kumquat, Lemon, Orange, Pummelo, Tangelo, Tangerine & Lime)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Melanose*, Scab*, Pink Pitting, Greasy Spot,	3.0 – 6.3 (1.5 – 3.15 lbs of metallic equivalent) *Use a minimum of 4 lbs/acre in California	7	Apply as pre-bloom and post-bloom sprays. Use higher rates when conditions favor disease.		
Brown Rot, Septoria Spot	4.0 – 6.3 (2.0 – 3.15 lbs of metallic equivalent)	7	Apply beginning in the fall and continuing as needed. For Brown Rot, apply to skirts of trees to a height of at least 4 feet. Apply also to bare ground one foot beyond skirt. Use higher rates when conditions favor disease. NOTE: In California, in areas subject to copper injury, add 1/4 lb. of high quality lime per lb of NU-COP® 50 DF.		
Citrus Canker (SUPPRESSION ONLY)	6.3 (3.15 lbs of metallic equivalent)	7	Spraying flushes 7 – 14 days after shoots begin to grow. Young fruit may need additional application. Number and timing of applications will depend on disease pressure. Under heavy disease pressure, each flush of new growth should be sprayed.		
Phytophthora Foot Rot	6.3 (3.15 lbs of metallic equivalent) (See comment)	7	Mix 1.0 lb with one gallon of water and paint trunks of trees from the soil surface to the lowest scaffold limbs. Do not exceed 6.3 lbs of product per acre. If maximum single application rate is met before application to all trees within the acre, observe the 7 day interval before treating additional trees. Trunk applications are included in the annual maximum application rate. Apply in May before summer rains and/or in the fall before wrapping trees for freeze protection. This treatment serves as protection for up to one year, but does not cure existing infections.		
Field Nursery Grown To control melanose, scab, pink pitting, greasy spot, brown rot and for citrus canker (suppression).	4.0 – 6.3 (2.0 – 3.15 lbs of metallic equivalent)	7	Apply 2.0 pounds of NU-COP® 50 DF per 100 gallons of water.		

RESTRICTIONS

Maximum single application rate is 6.3 lbs/A (3.15 lbs metallic copper equivalent)

Maximum annual application rate is 25.2 lbs/A (12.6 lbs metallic copper equivalent)

COFFEE (Not For Use in California)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Coffee Berry Disease (Collectotrichum coffeanum)	4.2	14	Apply after flowering and before the start of long rains and then at 14 – 28 day intervals until picking.	
Bacterial Blight (Pseudomonas syringae)	(2.1 lbs of metallic equivalent)	14	Begin spray program before the start of long rains and continue until picking. The critical time of spraying to control disease is just before, during, and after flowering(s), especially when these times coincide with wet weather.	
Iron Spot <i>(Cercospora coffeicola)</i> & Pink Disease <i>(Corticium salmonicolor)</i>	2.0 (1.0 lbs of metallic equivalent)	14	Begin treatment at start of wet season and continue at 14 – 28 day intervals for three applications.	
Leaf Rust	3.0 – 4.2 (1.5 – 2.1 lbs of metallic equivalent)	14	Apply before the onset of rain and then at 14 – 21 day intervals while rains continue.	

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent) Maximum annual application rate is 25.2 lbs/A (12.6 lb metallic copper equivalent)

CORN (FIELD, POP, SWEET) (Not For Use in California)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Bacterial Stalk Rot Goss's Wilt (suppression only)- NOT FOR USE IN CALIFORNIA	1.0 – 3.0 (0.5 – 1.5 lbs of metallic equivalent)	7	Begin treatment when disease first appears and repeat every 7 to 10 days as needed. Use the higher rates and shorter spray intervals when conditions favor disease.	

RESTRICTIONS

Maximum single application rate is 2.1 lbs/A (1.05 lbs metallic copper equivalent) Maximum annual application rate is 8.4 lbs/A (4.2 lb metallic copper equivalent)

CRANBERRY				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Fruit Rot	- 4.2 (2.1 lbs of metallic	7	One or two additional applications made at 7 to 14 day intervals may be required, depending on disease pressure.	
Rose Bloom			Apply three sprays on 10 – 14 day schedule as soon as symptoms are observed.	
Bacterial Stem Canker	equivalent)		Apply postharvest and again in spring before bud burst. One or two additional applications at 10 to 14 day intervals may be required depending upon disease severity.	

(Continued)

CRANBERRY (Continued)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Tip Blight (Monolinia), Stem and Leaf Blight, Red Leaf Spot	4.2 (2.1 lbs of metallic equivalent)	7	Apply delayed dormant spray in the Spring. Repeat at 10 – 14 day intervals as needed through pre-bloom.	

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent) Maximum annual application rate is 12.6 lbs/A (6.3 lb metallic copper equivalent)

CRUCIFERS (Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese cabbage, Collard Greens, Kale, Kohlrabi, Mustard Greens, & Turnip Greens)					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Downy Mildew Black Rot (Xanthomonas) Black Leaf Spot (Alternaria)	1.0 (0.5 lbs of metallic equivalent)	7	Begin application after transplants are set in the field, or shortly after emergence of field seeded crops or when conditions favor disease development. (CAUTION: A slight reddening of older leaves may occur on broccoli, and a slight flecking of wrapper leaves may occur on cabbage.)		

RESTRICTIONS

Maximum single application rate is 1.0 lbs/A (0.5 lbs metallic copper equivalent) Maximum annual application rate is 5.0 lbs/A (2.5 lbs metallic copper equivalent)

CUCURBITS (Cantaloupes, Casaba, Chayote, Citron melon, Cucumber, Gourd, Honeydews	,
Muskmelons, Pumpkins, Squash, Watermelons & Waxgourd)	

	Muskmeions, Pumpkins, Squasn, Watermeions & Waxgourd)						
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT				
Alternaria Leaf Spot Angular Leaf Spot Anthracnose Downy Mildew Powdery Mildew Gummy Stem Blight Watermelon Bacterial Fruit Blotch (suppression)	1.5 – 2.0 (0.75 – 1.0 lbs of metallic equivalent)	5	Begin application when conditions are favorable for disease development. Repeat at 5 – 10 day intervals. Use higher rates when conditions favor disease. NOTE: Crop injury may occur from application at higher rates and shorter intervals. Discontinue use if injury occurs.				

RESTRICTIONS

Maximum single application rate is 2.0 lbs/A (1.0 lb metallic copper equivalent)
Maximum annual application rate is 10.5 lbs/A (5.25 lbs metallic copper equivalent)

CURRANTS & GOOSEBERRY (Ribes) (Not For Use in California)
MINIMUM DAVO

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DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Anthracnose Leaf Spot	5.0 – 8.0 (2.5 – 4.0 lbs of metallic equivalent)		Make initial application after first leaves have expanded. Continue on a 10 – 14 day schedule during wet conditions in the Spring. Make an additional application after harvest.	

RESTRICTIONS

Maximum single application rate is 8.0 lbs/A (4.0 lbs metallic copper equivalent)
Maximum annual application rate is 20.0 lbs/A (10.0 lbs metallic copper equivalent)

	DILL					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT			
Phoma Leaf Spot, Rhizoctonia Foliage Blight	1.5 (0.75 lbs of metallic equivalent)		Begin applications when plants are first established in the field and repeat at 7 – 10 day intervals depending upon disease severity and environmental conditions.			

Maximum single application rate is 1.5 lbs/A (0.75 lbs metallic copper equivalent) Maximum annual application rate is 7.5 lbs/A (3.75 lbs. metallic copper equivalent)

	DOUGLAS FIR				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Rhabdocline needlecast	2.0 – 4.0 (1.0 – 2.0 lbs of metallic equivalent)		Begin applications at bud break and repeat at 7 – 28 day intervals. Use higher rates when conditions favor disease.		

RESTRICTIONS

Maximum single application rate is 4.0 lbs/A (2.0 lbs metallic copper equivalent)
Maximum annual application rate is 40.0 lbs/A (20.0 lbs metallic copper equivalent)

	EGGPLANT				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Alternaria Blight Anthracnose Phomopsis	1.5 (0.75 lbs of metallic equivalent)		Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals as needed depending on disease severity.		

RESTRICTIONS

Maximum single application rate is 1.5 lbs/A (0.75 lbs metallic copper equivalent) Maximum annual application rate is 15.0 lbs/A (7.5 lbs metallic copper equivalent)

FILBERTS (Permitted only in Washington & Oregon)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Bacterial Blight (Post Harvest application) Eastern Filbert Blight	8.0 – 12.0 (4.0 – 6.0 lbs of metallic equivalent)	14	Apply as a post-harvest spray. In seasons of heavy rainfall, apply a second spray when three-quarters of leaves have dropped. Add 1 pint of superior-type oil per 100 gallons of water. Apply as a dilute spray in adequate water for thorough coverage. Make initial application after harvest in October before heavy winter rains begin. The next application should be made in late February to early March followed by another application 1 month later. If desired, add 1 pint of a sticking agent or superior-type oil per 100 gallons of water.	

RESTRICTIONS

Maximum single application rate is 12.0 lbs/A (6.0 lbs metallic copper equivalent) Maximum annual application rate is 48.0 lbs/A (24.0 lbs metallic copper equivalent)

	GINSENG				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Alternaria Leaf	2.1	7	Begin tank mix applications as a tank mix with two pounds of		
Stem Blight	(1.05 lbs of metallic equivalent)		Iprodione 50WP in 100 gallons of water per acre as soon as plants have emerged in spring.		
			Applications should be repeated every seven 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 and 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 is required for control.		

Maximum single application rate is 2.1 lbs/A (1.05 lbs metallic copper equivalent) Maximum annual application rate is 10.5 lbs/A (5.25 lbs metallic copper equivalent)

	GRAPES				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Black Rot Powdery Mildew Downy Mildew Phomopsis	2.0 – 6.0 (1.0 - 3.0 lbs of metallic equivalent) (Use a Maximum of 2 lbs/acre in California)	3	Begin applications at late dormant up to bud break with subsequent applications throughout the season depending upon disease severity. NOTE: Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara, and Rosettes. Either test for sensitivity or add 1 to 3 pounds of hydrated lime per pound of NU-COP® 50 DF.		

RESTRICTIONS

Maximum single application rate is 6.0 lbs/A (3.0 lbs metallic copper equivalent)
Maximum annual application rate is 40.0 lbs/A (20.0 lbs metallic copper equivalent)

	GUAVA				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Anthracnose Red Algae	2.45 (1.22 lbs of metallic equivalent)		Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.		

RESTRICTIONS

Maximum single application rate is 2.45 lbs/A (1.22 lbs metallic copper equivalent) Maximum annual application rate is 9.8 lbs/A (4.9 lbs metallic copper equivalent)

	HOPS					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT			
Downy Mildew	1.0 (0.5 lbs of metallic equivalent)		Apply as a fungicide crown treatment (after pruning, but before training) as needed. After training, additional fungicide treatments are needed at 10 day intervals. Discontinue use 2 weeks before harvest.			

Maximum single application rate is 1.0 lb/A (0.5 lbs metallic copper equivalent) Maximum annual application rate is 5.0 lbs/A (2.5 lbs metallic copper equivalent)

	KIWI					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT			
Pseudomonas syringae Erwinia herbicola Pseudomonas fluorescens	4.2 (2.1 lbs of metallic equivalent)	30	Make applications on a monthly basis. A maximum of 3 applications may be made.			

RESTRICTIONS

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent) Maximum annual application rate is 12.6 lbs/A (6.3 lbs metallic copper equivalent)

	LETTUCE, ENDIVE & ESCAROLE				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Downy Mildew	1.0 – 2.0 (0.5 – 1.0 lbs of metallic equivalent)		Begin treatment when disease first appears and repeat every 5 – 10 days as needed to suppress disease.		

NOTE: Flecking and/or yellowing of leaves will occur under certain environmental conditions such as extended periods of moist weather, acid rains, or other conditions favoring reduced pH on leaf surfaces. Injury may be severe enough to reduce crop value. Increasing the volume of spray water may decrease phytotoxicity potential.

RESTRICTIONS

Maximum single application rate is 2.0 lbs/A (1.0 lb metallic copper equivalent) Maximum annual application rate is 16.0 lbs/A (8.0 lbs metallic copper equivalent)

	LITCHI				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Anthracnose	2.4 (1.2 lbs of metallic equivalent)		Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.		

RESTRICTIONS

Maximum single application rate is 2.4 lbs/A (1.2 lbs metallic copper equivalent) Maximum annual application rate is 9.6 lbs/A (4.8 lbs metallic copper equivalent)

	LIVE OAK (Not For Use in California)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Ball Moss	See comment *		* Mix 4 lbs of product per 100 gallons of water. Do not exceed the 4.0 lbs of product per acre limit.		
		l	Apply in spring after heavy rain, using 1.5 gallons of spray per foot of tree height. Make sure to set tufts thoroughly.		
			(NOTE: NU-COP® 50 DF may be injurious to some ornamentals grown under live oaks).		

Maximum single application rate is 4.0 lbs/A (2.0 lbs metallic copper equivalent) Maximum annual application rate is 40.0 lbs/A (20.0 lbs metallic copper equivalent)

	MACADAMIA NUTS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Anthracnose	4.7 (2.35 lbs of metallic equivalent)	7	Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage		
Blossom blight Raceme blight	2.0 – 4.0 (1.0 – 2.0 lbs of metallic equivalent) (Use a minimum of 4.0 lbs/acre in California)	7	Apply during peak raceme development and bloom period. Use higher rates when conditions favor disease.		

RESTRICTIONS

Maximum single application rate is 4.7 lbs/A (2.36 lbs metallic copper equivalent)

Maximum annual application rate is 18.8 lbs/A (9.44 lbs metallic copper equivalent)

	MAMEY SAPOTE				
DISEASE APPLICATION RATE (lbs of product/Acre) MINIMUM DAYS RETREATMENT INTERVAL			COMMENT		
Anthracnose	3.0 – 4.2	14	Apply when conditions favor disease development.		
Algal Leaf Spot	(1.5 – 2.1 lbs of metallic equivalent)		Repeat on 14 – 30 day schedule as disease severity and environmental conditions dictate.		
			Use higher rates when conditions favor disease.		

RESTRICTIONS

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent)
Maximum annual application rate is 16.8 lbs/A (8.4 lbs metallic copper equivalent)

	MANGO				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Anthracnose	4.0 – 6.4 (2.0 –3.2 lbs of metallic equivalent)	7	Repeat on 7 – 30 day schedule as disease severity and environmental conditions dictate. Use higher rates when conditions favor disease.		

Maximum single application rate is 6.4 lbs/A (3.2 lbs metallic copper equivalent)
Maximum annual application rate is 96.0 lbs/A (48.0 lbs metallic copper equivalent)

OKRA (Not For Use in California)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Anthracnose Bacterial Leaf Spot Leaf Spots Pod Spots Powdery Mildew	1.0 – 2.1 (0.5 – 1.05 lbs of metallic equivalent)	5	Begin treatment when disease first threatens and repeat every 5 to 10 days or as needed depending on disease severity. Use the higher rates and shorter spray intervals when conditions favor disease.	

RESTRICTIONS

Maximum single application rate is 2.1 lbs/A (1.05 lbs metallic copper equivalent) Maximum annual application rate is 10.5 lbs/A (5.25 lbs metallic copper equivalent)

	OLIVES				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Peacock Spot Olive Knot	5.0 – 12.0 (2.5 – 6.0 lbs of metallic equivalent) Use a minimum of 8 lbs/acre in California		Apply before winter rains fall. A second application in early spring should be made if disease is severe. Use higher rates when conditions favor disease.		

RESTRICTIONS

Maximum single application rate is 12.0 lbs/A (6.0 lbs metallic copper equivalent) Maximum annual application rate is 36.0 lbs/A (18.0 lbs metallic copper equivalent)

	ONION & GARLIC*			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Purple Blotch Downy Mildew	2.0 (1.0 lbs of metallic equivalent)	7	Begin when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals as needed depending upon disease pressure.	
Bacterial Blight	1.0 – 1.5 (0.5 – 0.75 lbs of metallic equivalent)	1	Can cause phytotoxicity to leaves.	

RESTRICTIONS

Maximum single application rate is 2.0 lbs/A (1.0 lb metallic copper equivalent) Maximum annual application rate is 12.0 lbs/A (6.0 lbs metallic copper equivalent)

	PAPAYA				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Anthracnose	4.0 – 5.3	14	Begin application before disease is expected to appear.		
(2.0 – 2.63 lbs of		Repeat at 14 day intervals.			
	metallic equivalent)		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 single application rate is 5.3 lbs/A (2.63 lbs metallic copper equivalent) Maximum annual application rate is 42.4 lbs/A (21.2 lbs metallic copper equivalent)

	PARSLEY				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Bacterial Blight (<i>Pseudomonas</i> sp.)	2.0 (1.0 lbs of metallic equivalent)		Begin applications when plants are first established in the field and repeat at 10 day intervals depending upon disease severity and environmental conditions.		

RESTRICTIONS

Maximum single application rate is 2.0 lbs/A (1.0 lbs metallic copper equivalent) Maximum annual application rate is 4.0 lbs/A (2.0 lbs metallic copper equivalent)

PASSION FRUIT				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Anthracnose	4.7 (2.35 lbs of metallic equivalent)	1	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	

RESTRICTIONS

Maximum single application rate is 4.7 lbs/A (2.36 lbs metallic copper equivalent) Maximum annual application rate is 18.8 lbs/A (9.44 lbs metallic copper equivalent)

	PE/	ACHES & NECTARI	NES
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant, Late Dormant,	8.0 – 16.0	7	Apply at leaf fall as dormant application.
Up to Pink Bud: Bacterial Spot Leaf Curl Coryneum Blight (Shot Hole)	(4.0 – 8.0 lbs of metallic equivalent)		Use the higher rate when rainfall is very heavy and disease pressure is high. May be used with an agricultural spray oil.
Brown Rot Blossom Blight	8.0 – 12.0	7	Apply as a full cover spray at pink bud.
	(4.0 - 6.0 lbs of metallic equivalent)		(Application at this time also affords some control of Leaf Curl and Coryneum Blight).
			NOTE: Do not spray later than three weeks prior to harvest.
Bloom & Growing Season:	1.0 – 3.0	5	Post-bloom application applied at first and second
Bacterial Spot	(0.5 – 1.5 lbs of metal-		cover sprays.
	lic equivalent) Use a maximum of 1 Ib/acre in California		NOTE: do not spray 3 weeks prior to harvest. Spotting of leaves and some defoliation may occur from use in post-bloom cover sprays.

Maximum single dormant season application rate is 16.0 lbs/A (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 3.0 lbs/A (1.5 lbs metallic copper equivalent) Maximum annual application rate is 36.0 lbs/A (18.0 metallic copper equivalent)

	PEANUTS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Cercospora Leaf Spot	1.5 (0.75 lbs of metallic	7	Begin spraying 25-40 days after planting or when disease symptoms appear.		
	equivalent)		Use sufficient water to get adequate coverage.		
			Continue applications at 7 to 14 day intervals. Reduce spray interval to 7 days during humid weather.		

RESTRICTIONS

Maximum single application rate is 1.5 lbs/A (0.75 lbs metallic copper equivalent) Maximum annual application rate is 9.0 lbs/A (4.5 metallic copper equivalent)

PEAS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Powdery Mildew	1.5	7	Begin spray treatment when disease symptoms first appear.	
	(0.75 lbs of metallic equivalent)		Repeat applications at weekly intervals.	

Maximum single application rate is 1.5 lbs/A (0.75 lbs metallic copper equivalent) Maximum annual application rate is 7.5 lbs/A (3.75 lbs metallic copper equivalent)

PECANS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Shuck and Kernel rot (Phytophthora cactorum)	2.0 - 4.2 (1.0 – 2.1 lbs of	14	Apply in sufficient water for good coverage at 2 – 4 week intervals starting at kernel	
Zonate leaf spot	metallic equivalent)		growth and continuing until shucks open.	
(Cristulariella pyramidalis)			Use the higher rate and shorter intervals if frequent rainfall occurs.	
Mosses	See Comment	Make only one application per	Mix 2 lbs per 100 gallons spray plus spreader-sticker on a dilute spray basis and	
Algae Lichen		year year	apply in dormant season before buds swell, thoroughly wetting limbs and mosses.	

RESTRICTIONS

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent) Maximum annual application rate is 16.8/A (8.4 lbs metallic copper equivalent)

PEPPERS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Bacterial Spot	1.5 (0.75 lbs of metallic	1	Apply, when disease threatens, in sufficient water to provide adequate coverage.	
	equivalent)		Use at 3 to 14 day intervals depending on disease severity.	

RESTRICTIONS

Maximum single application rate is 1.5 lbs/A (0.75 lbs metallic copper equivalent)
Maximum annual application rate is 23.5 lbs/A (11.75 lbs metallic copper equivalent)

PISTACHIOS				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Botrytis Blight, Botryosphaeria Panicle, Shoot Blight, Septoria Leaf Blight, Late Blight <i>(Alternaria)</i>	3.0 – 4.2 (1.5 – 2.1 lbs of metallic equivalent)	14	Make initial application at bud swell and repeat on a 14 – 28 day schedule. Use higher rates when conditions favor disease.	

Maximum single application rate is 4.2 lbs/A (2.1 lbs metallic copper equivalent) Maximum annual application rate is 16.8 lbs/A (8.4 lbs metallic copper equivalent)

PLUMS & PRUNES					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Dormant, Late Dormant, Up to Pink Bud: Coryneum blight (Shot hole)	8.0 – 16.0 (4.0 – 8.0 lbs of metallic equivalent)	7	Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.		
Bloom & Growing Season: Brown rot blossom blight, Black Knot	3.0 (1.5 lbs of metallic equivalent)	5	Apply full cover application at pink, red or early white bud stage.		

RESTRICTIONS

Maximum single dormant season application rate is 16.0 lbs/A (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 3.0 lbs/A (1.5 lbs metallic copper equivalent) Maximum annual application rate is 36.0 lbs/A (18.0 lbs metallic copper equivalent)

	POME FRUIT (Apple, Loquat, Pear, Quince)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Fall & Late Dormant:	12.0 – 16.0	Only one dormant	Apply before fall rains.		
Anthracnose Blossom & Shoot Blast (Pseudomonas) European Canker Shoot Blast	(6.0 – 8.0 lbs of metallic equivalent)	application allowed per season	Use on yellow varieties may cause discoloration. To avoid, pick before spraying.		
Between silver-tip and green-tip:	4.0 – 12.0 (2.0 – 6.0 lbs of	Only one application	ATTENTION: Phytotoxicity may occur from late application. (Discontinue use when green-tip is 1/2 inch.)		
Apple Scab*, Fireblight	metallic equivalent)	allowed per season	(
*(Not For Use in California)					

(Continued)

	POME FRUIT (Apple, Loquat, Pear, Quince) (Continued)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Bloom & Growing Season: Fireblight	1.0 – 3.0 (0.5 – 1.5 lbs of metallic equivalent)	5	Extended spray schedule where fruit finish is not a concern. Continued applications may be made at 5 – 7 day intervals.		
J	(Use a maximum of 1 lb/acre in California)		NOTE: Crop injury may occur from extended spray schedule. Not intended for fresh market apples due to possible russeting. The addition of $1-3$ lbs of lime per pound of NU-COP® 50 DF may reduce injury.		
Crown or Collar	1.0	5	Apply either in early spring or in fall after harvest each year.		
Rot (Phytophthora cactorum)	(0.5 lbs of metallic equivalent)		Do not use if soil pH is below 5.5 or copper toxicity may result.		
(Not For Use in California)	(See comment)		Mix 1 lb product in 25 gallons of water. Apply 1 – 4 gallons of suspension as a drench on the lower trunk area of each tree.		
			Do not exceed the maximum single application rate of 1.0 pounds of product per acre for growing season use.		
			Follow the 5 day retreatment interval for any untreated trees.		

Maximum single dormant season application rate is 16.0 lbs/A (8.0 lbs. metallic copper equivalent) Maximum single silver-tip to green-tip season application rate is 12.0 lbs/A (6.0 lbs. metallic copper equivalent) Maximum single growing season application rate is 1.0-3.0 lbs/A (0.5-1.5 lbs. metallic copper equivalent) Maximum annual application rate is 32.0 lbs/A (16 lbs. metallic copper equivalent)

DISEASE APPLICATION RATE (lbs of product/Acre) MINIMUM DAYS RETREATMENT INTERVAL COMMENT	
Early & Late Blight (0.5 - 2.5 lbs of metallic equivalent) Use a maximum of 4 lbs/acre in California 5 Apply 1.0 - 1.5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where disease is light and up to 3 to 5 pounds product at 5 to 10 day in plants are 2 - 6 inches high until 2 weeks before where 2 to 10 day in plants are 2 - 6 inches high until 2 weeks before at 2 day in plants are 2 - 6 inches high until 2	ofore harvest in locations als per acre where disease with NU-COP® 50 DF compatible fungicides

RESTRICTIONS

Maximum single application rate is 5.0 lbs/A (2.5 lbs metallic copper equivalent)
Maximum annual application rate is 50.0 lbs/A (25.0 lbs metallic copper equivalent)

STRAWBERRIES				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Downy Mildew Leaf Spot Leaf Blight	1.0 - 3.0 (1.0 – 1.5 lbs of metallic equivalent) (Use a minimum of 2 lbs/acre in California)	7	Begin application when plants are established and continue on a weekly schedule throughout season. Apply in at least 20 gallons of water. Use the higher rates when conditions favor disease. NOTE: Discontinue applications if signs of phytotoxicity appear.	

Maximum single application rate is 3.0 lbs/A (1.5 lbs metallic copper equivalent) Maximum annual application rate is 16.0 lbs/A (8.0 lbs metallic copper equivalent)

ATEMOYA, SUGAR APPLE (Annona)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT	
Anthracnose	6.3 (3.15 lbs of metallic equivalent)	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	

RESTRICTIONS

Maximum single application rate is 6.3 lbs/A (3.15 lbs metallic copper equivalent) Maximum annual application rate is 25.2 lbs/A (12.6 lbs metallic copper equivalent)

SUGAR BEETS & TABLE BEETS					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Cercospora Leaf Spot	2.45 (1.22 lbs of metallic equivalent)	10	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals as needed.		

RESTRICTIONS

Maximum single application rate is 2.45 lbs/A (1.22 lbs metallic copper equivalent) Maximum annual application rate is 15.0 lbs/A (7.5 lbs metallic copper equivalent)

	SYCAMORE					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT			
Anthracnose	2.0 - 4.0	7	Make two applications as a full cover spray.			
	(1.0 - 2.0 lbs of)		Use a minimum of 100 gallons water per acre.			
	metallic equivalent)	Make first application at bud crack and second application	Make first application at bud crack and second application 7 to 14 days			
	(Use a maximum of		later at 10% leaf expansion.			
	3 lbs/acre in California)					

Maximum single application rate is 4.0 lbs/A (2.0 lbs metallic copper equivalent)
Maximum annual application rate is 40.0 lbs/A (20.0 lbs metallic copper equivalent)

TOMATOES (Processing Market)					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Early Blight Bacterial Speck Bacterial Spot Anthracnose Gray Leaf Mold Gray Leaf Spot Septoria Leaf Spot Late Blight	1.0 (0.5 lbs of metallic equivalent)	3	When disease threatens, apply at 7 – 10 day intervals, more frequently when disease is severe.		

RESTRICTIONS

Maximum single application rate is 1.0 lb/A (0.5 lbs metallic copper equivalent)
Maximum annual application rate is 34.5 lbs/A (17.25 lbs metallic copper equivalent)

TOMATOES (Fresh Market)					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Early Blight Bacterial Speck Bacterial Spot Anthracnose Gray Leaf Mold Gray Leaf Spot Septoria Leaf Spot Late Blight	3.2 (1.6 lbs of metallic equivalent)	3	When disease threatens, apply at 7 – 10 day intervals, more frequently when disease is severe.		

RESTRICTIONS

Maximum single application rate is 3.2 lbs/A (1.6 lbs metallic copper equivalent)
Maximum annual application rate is 16.0 lbs/A (8.0 lbs metallic copper equivalent)

	TURFGRASS (Sod Farms and other non-residential sites only)				
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Algae	3.0 – 6.0 (1.5 – 3.0 lbs of	10	May be used as a maintenance spray as needed. May be used alone or in combination with fungicides such as dithiocarbamates.		
	metallic equivalent)		Use a minimum of 100 gallons of spray mix per acre.		
			Phytotoxicity may depend on varietal differences. Apply the recommended rate to a small area and observe $7-10$ days for phytotoxicity. If phytotoxicity occurs, discontinue use.		

Maximum single application rate is 6.0 lbs/A (3.0 lbs metallic copper equivalent) Maximum annual application rate is 18.0 lbs/A (9.0 lbs metallic copper equivalent)

	WALNUTS					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT			
Walnut Blight	4.0 – 8.0 (2.0 – 4.0 lbs of	7	Apply first spray at early pre-bloom when catkins are partially expanded.			
	metallic equivalent) (Use a minimum of 8 lbs/acre in California)		Make three additional applications during bloom and early nutlet stages at 7 to 10 day intervals. Additional applications may be necessary when frequent rainfall occurs.			
o ibs/acre in camorna)		Thorough coverage of catkins, leaves and nutlets is essential for effective control. When applied as a dilute spray, 1 pint of summer oil emulsion may be added per 100 gallons of spray.				
			NOTE: Adequate control may not be obtained when copper tolerant species of Xanthamonas bacteria are present.			

RESTRICTIONS

Maximum single application rate is 8.0 lbs/A (4.0 lbs metallic copper equivalent)
Maximum annual application rate is 50.4 lbs/A (25.2 lbs metallic copper equivalent)

WATERCRESS					
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT		
Cercospora Leaf Spot	1.0 (0.5 lbs of metallic equivalent)		Begin application when plants are first established in the field, repeating at 7 – 14 day intervals depending on disease severity and environmental conditions.		
			Do not exceed 4 applications per year. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.		

RESTRICTIONS

Maximum single application rate is 1.0 lb/A (0.5 lbs metallic copper equivalent) Maximum annual application rate is 4.0 lbs/A (2.0 lbs metallic copper equivalent)

GREENHOUSE AND SHADEHOUSE CROPS

NOTICE TO USER: NU-COP® 50 DF may be used in greenhouses and shadehouses to control diseases on some crops which appear on this label. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shadehouses differ greatly from crops grown under field conditions. Neither the manufacturer nor seller has determined whether or not NU-COP® 50 DF can be used safely prior to commercial use. In a small area, apply the labelled rates to the plant in question, i.e. foliage, fruit, etc. and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use.

Apply NU-COP® 50 DF according to specific rates given for these crops in pounds per acre or pounds per 100 gallons.

NU-COP® 50 DF should be applied in adequate water for thorough coverage of plant parts. Begin application at first sign of disease and repeat at 7 to 14 day intervals as needed; use shorter interval during periods when severe disease conditions persist.

The Re-entry Interval (REI) for Greenhouse use is 24 hours. Refer to the Agricultural Use Requirements section for notification and PPE requirements for greenhouse use.

CROP	DISEASE	RATE Ounces/ 1,000 sq.ft.	COMMENTS
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	0.2 to 0.5	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals as needed depending on disease pressure.
Pepper	Bacterial Spot	0.2 to 0.5	Begin applications when conditions first favor disease development and repeat at 5 to 10 day intervals as needed depending on disease severity. Use higher rates for severe disease.
Cucumber	Angular Leaf Spot, Downy Mildew	0.4 to 0.77	Apply weekly when plants begin to vine.
Tomato	Early Blight, Late Blight	0.2 to 0.4	Begin when disease first threatens and repeat at 3 to 10 day intervals or as needed depending on disease severity. Use higher rate for severe disease.
	Bacterial Speck	0.2 to 0.4	Begin applications when disease first threatens and repeat at 3 to 10 day intervals or as needed depending on disease severity.
	Bacterial Spot, Anthracnose, Gray Leaf Mold, Septoria Leaf Spot	0.2 to 0.4	Begin when disease first threatens and repeat at 3 to 10 day intervals or as needed depending on disease severity. Use higher rate for severe disease.

ORNAMENTALS (Not For Use in California)

Notice to User: Plant sensitivities to NU-COP® 50 DF have been found to be acceptable in specific genera and species listed on this label; however, phytotoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to NU-COP® 50 DF. Neither the manufacturer nor seller has determined whether or not NU-COP® 50 DF can be safely used on ornamental or nursery plants not listed on this label. The user should determine if NU-COP® 50 DF can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e., bedding plants, foliage, etc., and observe for 7 – 10 days for symptoms of phytotoxicity prior to commercial use.

Use NU-COP® 50 DF on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, for professional use on ornamentals grown for indoor and outdoor landscaping, and for control of bacterial and fungal diseases of foliage, flowers and stems.

Apply as a thorough coverage spray using 1.0 lbs product per 100 gallons of water. Begin application at first sign of disease and repeat at 7 to 14 day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist.

NU-COP® 50 DF may be used as a maintenance spray alone or in combination with other fungicides such as the dithiocarbamates.

Ornamentals Restrictions:

- Minimum retreatment interval is 7 days.
- Maximum single application rate is 4.0 lbs/A (2.0 lbs metallic copper equivalent)
- Maximum annual application rate is 40.0 lbs/A (20 lbs metallic copper equivalent)

ORNAMENTAL/DISEASES:

Althea (Rose of Sharon)/Bacterial Leaf Spot

Aralia/Xanthomonas & Cercospora Leaf Spots, Alternaria

Arborvitae/Alternaria Twig Blight, Cercospora Leaf Blight

Azalea*/Cercospora Leaf Spot, Botrytis Blight, Phytophthora Dieback & Powdery Mildew

Begonia/Xanthomonas Leaf Spot, Anthracnose

Bougainvillea/Anthracnose, Bacterial Leaf Spot

Bulbs (Easter Lily**, Tulip, Gladiolus)/Anthracnose, Botrytis Blight

Camellia/Anthracnose, Bacterial Leaf Spot

Camphor Tree/Pseudomonas Leaf Spot

Canna/Pseudomonas Leaf Spot

Carnation*/Alternaria Blight, Pseudomonas Leaf Spot, & Botrytis Blight

Chinese Tallow Tree/Bacterial Leaf Spot (Xanthomonas sp., Pseudomonas sp.)

Chrysanthemum*/Septoria Leaf Spot & Botrytis Blight

Cotoneaster/Botrytis Blight

Dahlia/Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot

Date Palm/Pestalotia Leaf Spot

Dianthus/Bacterial Spot, Bacterial Soft Rot

Dogwood/Anthracnose

Dusty Miller/Bacterial Leaf Spot (Pseudomonas cichorii)

Echinacea/Bacterial Leaf Spot (Pseudomonas cichorii)

Elm "Drake"/Xanthomonas Leaf Spot

Euonymus/Botrytis Blight & Anthracnose

European Fan Palm/Pestalotia Leaf Spot

Gardenia/Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf Spot

Geranium/Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot

Gladiolus/Alternaria Leaf Spot, Botrytis Gray Mold, Bacterial Leaf Blight

Golden Rain Tree/Bacterial Leaf Spot

Hibiscus/Bacterial Leaf Spot

Holly Fern/Pseudomonas Leaf Spot

Impatiens/Bacterial Leaf Spot

India hawthorn (greenhouse)/Entomosporium Leaf Spot

Ivy*/Xanthomonas Leaf Spot

Ixora/Xanthomonas Leaf Spot

Juniper (Eastern Red Cedar)/Anthracnose

Lantana/Bacterial Leaf Spot

Lilac/Cercospora Leaf Spot

Loblolly Bay/Anthracnose

Loquat/Entomosporium maculata, Colletotrichum sp.

Magnolia (Southern)/Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot

Mandevillas/Anthracnose

Marigold/Alternaria Leaf Spot, Botrytis Leaf and Flower Rot, Cercospora Leaf Spot

Mulberry, Weeping/Bacterial Leaf Spot

Oak, Laurel/Algal Leaf Spot (Cephaleuros virescens)

Oleander/Bacterial Leaf Spot, Fungal Leaf Spot

Pachysandra/Volutella Leaf Blight

Pansy/Downy Mildew

Pear (Flowering)/Fireblight, Leaf Spot

Pentas (Egyptian Star)/Bacterial Leaf Spot (Xanthomonas sp.)

Peony/Botrytis Blight

Periwinkle/Phomopsis Stem Blight

Philodendron/Bacterial Leaf Spot

Phlox/Alternaria Leaf Spot

Photinia (Red Tip)/Anthracnose, Entomosporium Leaf Spot

Pistachio/Anthracnose

Plantain Lily/Bacterial Leaf Spot

Powder Puff Plant/Bacterial Leaf Spot

Pyracantha/Fireblight & Scab

Queen Palm/Exosporium Leaf Spot, Phytophthora Bud Rot

Rhododendron/Alternaria Flower Spot

Rose*/Powdery Mildew, Black Spot

Verbena/Xanthomonas Leaf Spot

Viburnum/Anthracnose

Washingtonia Palm/Pestalotia Leaf Spot

Weeping Willow/Anthracnose

Yucca (Adams Needle)/Cercospora & Septoria Leaf Spot

*Discoloration of foliage and/or blooms have been noted on some varieties. To prevent residues on commercial plants, do not spray just before selling season.

**For Easter Lily, use 2.0 - 5.0 lbs product per 100 gallons.

Restrictions (Easter Lily):

- Minimum retreatment interval is 7 days.
- Maximum single application rate is 5.0 lbs/A (2.5 lbs metallic copper equivalent)
- Maximum annual application rate is 150 lbs/A (75 lbs metallic copper equivalent)
- Do not apply any additional copper pesticide to this land for 36 months.

NOTICE: To the extent consistent with applicable law, Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on this label when used in accordance with directions under normal conditions of use; but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions not reasonably foreseeable to seller; the buyer assumes the risk of any such use.