

45002-4

07-20-2011

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Chemical Safety and Pollution Prevention
Office of Pesticide Programs
Registration Division (7504P)
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

EPA Reg. Number:

45002-4

Date of Issuance:

JUL 20 2011

Term of Issuance:

Unconditional

Name of Pesticide Product:

Blue Shield DF

NOTICE OF PESTICIDE:

- Registration
- Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Albaugh, Inc
PO Box 2127
Valdosta, GA 31604-2127

Mailed to:

Morris Gaskins
Registration Manager

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/reregistered 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.

EPA received a label amendment request submitted by email on July 20, 2011. EPA grants this request under the authority of section 3(c)(5) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended. With this accepted labeling, all requirements set forth in the Reregistration Eligibility Decision for coppers have been satisfied. Therefore, EPA reregisters the product listed above. This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

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Signature of Approving Official:

Date:

JUL 20 2011

Tony Kish, Product Manager (22)
Fungicide Branch/Registration Division/OPP/OCSP (7504P)

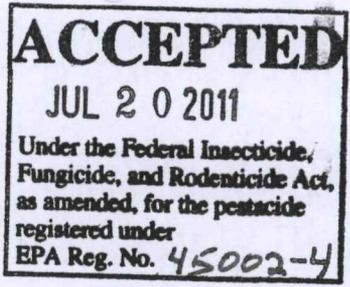
Submit one (1) copy of final printed labeling. Amended labeling will supersede all previously accepted labels. A copy of your label stamped "Accepted" is enclosed for your records. Products shipped after 12 months from the date of this Notice or the next printing of your label, whichever occurs first, must bear the new revised label.

If you have any questions or comments regarding this letter, please contact Dominic Schuler at (703) 347-0260 or via e-mail at schuler.dominic@epa.gov.

Enclosure:

Label stamped "Accepted"
PRB Label Review dated 9/30/2009
Acute Toxicity Review DP361783 dated 02/27/2009
Product Chemistry Review DP368575 dated 08/31/2009

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BLUE SHIELD DF
FUNGICIDE/BACTERICIDE

ACTIVE INGREDIENT:		
Copper Hydroxide*	76.77%
OTHER INGREDIENTS:	23.23%
TOTAL:	100.00%

(*Metallic Copper Equivalent - 50%)
*CAS No. 20427-59-2

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).

FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> • 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.
<p>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.</p> <p>NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate use of gastric lavage.</p>	

SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 45002-4

EPA Est. No. 45002-MEX-02

NET CONTENTS:

Manufactured For:
Albaugh Inc.
Ankeny, IA

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.

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 and by posting warning signs at the 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:

- 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 reuse 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

Blue Shield 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 Blue Shield DF, do not apply less than the label recommended 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 recommended 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 Blue Shield 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.

Blue Shield 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 Blue Shield 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, etc.

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 Blue Shield 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 Blue Shield DF as noted below unless indicated otherwise in the specific crop directions. Blue Shield 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.

**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.

GENERAL 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.
- (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 Blue Shield 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.

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ALFALFA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM RETREATMENT INTERVAL	COMMENT
Cercospora & Leptosphaerulina Leaf Spots	1.0 (0.5 lbs of metallic equivalent)	30 Days	Apply 10 to 14 days before each harvest or earlier if disease threatens. 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 lb/A (1.0 lbs metallic copper equivalent)			

ALMONDS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant and Late Dormant to Pink Bud Season: Bacterial Blast (Pseudomonas) Coryneum Blight (Shot hole)	8.0 – 16.0 (4.0 - 8.0 lbs of metallic equivalent)	7	Use at dormant to early pink bud. 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: Coryneum Blight Blossom Brown Rot	3.0 (1.5 lbs of metallic equivalent)	5	Use during the early bloom stage (popcorn). A second application in late dormant before foliage buds swell may be necessary when frequent rainfall occurs. To avoid plant injury, do not use 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)			

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APRICOTS			
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	12.0 – 16.0 (6.0 – 8.0 lbs of metallic equivalent)	Only one dormant application allowed per season	Apply before fall rains. Use the higher rates when conditions favor disease. Use on yellow varieties may cause discoloration. To avoid, pick before spraying.
Bloom, Growing Season: Coryneum Blight (Shot Hole) Blossom Brown Rot	2.0 – 3.0 (1.0 – 1.5 lbs of metallic equivalent)	5	Apply at popcorn to full bloom as a full cover spray. 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)	14	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)			

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BANANAS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Sigatoka (black and yellow)	2.1 (1.05 lbs of metallic equivalent)	7	Apply by air at 2.1 lbs. per acre in 3 gallons of water containing 0.5 gallon agricultural oil. Apply on a 7 - 14 day schedule throughout the wet season. Apply at 14 - 21 day intervals during dry periods.
Black Pitting		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.
RESTRICTIONS 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 metallic equivalent)	7	For protective sprays apply first application when plants are five to six inches high. Apply on 7 - 14 day schedule depending on local conditions. Use higher rate for more severe disease pressure.
Brown spot			
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
Anthracnose, Leaf & Cane Spot, Purple Blotch, Yellow Rust	4.0 (2.0 lbs of metallic equivalent)	7	Make fall spray application after harvest. Apply delayed dormant spray after pruning/training in spring.
	2.0 (1.0 lbs of metallic equivalent)	7	Apply when leaf buds begin to open and repeat when flower buds show white. 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/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)	7	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.
RESTRICTIONS Maximum single application rate is 4.2/A (2.1 lbs metallic copper equivalent) Maximum annual application rate is 16.8/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)			

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CARAMBOLA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose	4.2 (2.1 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 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 (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Carrot Blight (Cercospora)	2.0 (1.0 lbs of metallic equivalent)	7	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/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 depending on severity and weather.
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)			

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)			

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CHERRY			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant, Late Dormant, Up to Pink Bud: Anthracnose Dead Bud (<i>Pseudomonas syringae</i>) Coryneum Blight European Canker	8.0 - 16.0 (4.0 - 8.0 lbs of metallic equivalent)	7	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	Applied 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/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)	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 BLUE SHIELD 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 Blue Shield DF per 100 gallons of water. Apply Blue Shield DF as needed depending on disease severity.
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)			

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COFFEE			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Coffee Berry Disease (Collectotrichum coffeanum)	4.2 (2.1 lbs of metallic equivalent)	14	Apply after flowering and before the start of long rains and then at 14-28 day intervals until picking. Use higher rates when rainfall is heavy and disease pressure is high.
Bacterial Blight (Pseudomonas syringae)		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. Use higher rates when rainfall is heavy and disease pressure is high.
Iron Spot (Cercospora coffeicola) & Pink Disease (Corticium salmonicolor)	2.0 (1.0 lbs of metallic equivalent)	14	Begin treatment at start of wet season and continue at 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. Use higher rates when rainfall is heavy and disease pressure is high.
RESTRICTIONS 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 lbs metallic copper equivalent)			

CORN (FIELD, POP, SWEET)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Stalk Rot	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)			

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

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CUCURBITS (Cantaloupes, Casaba, Chayote, Citron melon, Cucumber, Gourd, Honeydews, Muskmelons, Pumpkins, Squash, Watermelons & 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)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose Leaf Spot	5.0 (2.5 lbs of metallic equivalent)	10	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 5.0 lbs/A (2.5 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)	7	Begin applications when plants are first established in the field and repeat at 7-10 day intervals depending upon disease severity and environmental conditions.
RESTRICTIONS 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)			

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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)	7	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)	7	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)	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.
Eastern Filbert Blight			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)			

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GINSENG			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Alternaria Leaf Stem Blight	2.1 (1.05 lbs of metallic equivalent)	7	Begin tank mix applications as a tank mix with two pounds of 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.
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)			

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)	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 Blue Shield 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)			

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GUAVA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose Red Algae	2.45 (1.22 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 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)	10	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.
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)			

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)			

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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)	5	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
Anthracoese	2.4 (1.2 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 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			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Ball Moss	See comment *	A second application may be required after 12 months	* Mix 4 lbs of product per 100 gallons of water. Do not exceed the 4.0 lbs of product per acre limit Apply in spring after heavy rain, using 1.5 gallons of spray per foot of tree height.. Make sure to set tufts thoroughly. (NOTE: BLUE SHIELD DF may be injurious to some ornamentals grown under live oaks).
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)			

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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)	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 Algal Leaf Spot	3.0 – 4.2 (1.5 – 2.1 lbs of metallic equivalent)	14	Apply when conditions favor disease development. 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 – 5.2 (2.0 – 2.6 lbs of metallic equivalent)	30	Apply monthly after fruit set until harvest.
RESTRICTIONS Maximum single application rate is 5.2 lbs/A (2.6 lbs metallic copper equivalent) Maximum annual application rate is 36.4 lbs/A (18.2 lbs metallic copper equivalent)			

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OKRA			
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 – 6.3 (2.5 – 3.15 lbs of metallic equivalent)	30	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 6.3 lbs/A (3.15 lbs metallic copper equivalent) Maximum annual application rate is 12.6 lbs/A (6.3 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. Can cause phytotoxicity to leaves.
Bacterial Blight	1.0 – 1.5 (0.5 – 0.75 lbs of metallic equivalent)		
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)			

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PAPAYA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose	4.0 – 5.3 (2.0 – 2.63 lbs of metallic equivalent)	14	Begin application before disease is expected to appear. Repeat at 14 day intervals. Use the higher rates when conditions favor disease. The addition of a suitable spreader- sticker may be desirable especially during periods of heavy rains.
RESTRICTIONS 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 (Pseudomonas sp.)	2.0 (1.0 lbs of metallic equivalent)	10	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)	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 4.7 lbs/A (2.36 lbs metallic copper equivalent) Maximum annual application rate is 18.8/A (9.44 lbs metallic copper equivalent)			

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PEACHES & NECTARINES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant, Late Dormant, Up to Pink Bud: Bacterial Spot Leaf Curl Coryneum Blight (Shot Hole)	8.0 – 16.0 (4.0 – 8.0 lbs of metallic equivalent)	7	Apply at leaf fall as dormant application. 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 (4.0 - 6.0 lbs of metallic equivalent)	7	Apply as a full cover spray at pink bud. (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. Do not use at rates above those recommended.
Bloom & Growing Season: Bacterial Spot	1.0 – 3.0 (0.5 – 1.5 lbs of metallic equivalent)	5	Post-bloom application applied at first and second cover sprays. NOTE: do not spray 3 weeks prior to harvest. Spotting of leaves and some defoliation may occur from use in post-bloom cover sprays.
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 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 equivalent)	7	Begin spraying 25-40 days after planting or when disease symptoms appear. 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)			

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PEAS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Powdery Mildew	1.5 (0.75 lbs of metallic equivalent)	7	Begin spray treatment when disease symptoms first appear. Repeat applications at weekly intervals.
RESTRICTIONS 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 metallic equivalent)	14	Apply in sufficient water for good coverage at 2-4 week intervals starting at kernel growth and continuing until shucks open.
Zonate leaf spot (Cristulariella pyramidalis)			Use the higher rate and shorter intervals if frequent rainfall occurs.
Mosses Algae Lichen	See Comment	Make only one application per year	Mix 2 lbs per 100 gallons spray plus spreader-sticker on a dilute spray basis and 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 equivalent)	3	Apply, when disease threatens, in sufficient water to provide adequate coverage. 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)			

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PISTACHIOS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Botrytis Blight, Botryosphaeria Panicle, Shoot Blight, Septoria Leaf Blight, Late Blight (Alternaria)	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.
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)			

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. Use the higher rate when disease pressure is heavy or conditions favor disease development.
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)			

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POME FRUIT (Apple, Loquat, Pear, Quince)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Fall & Late Dormant: Anthracnose Blossom & Shoot Blast (Pseudomonas) European Canker Shoot Blast	12.0 – 16.0 (6.0 – 8.0 lbs of metallic equivalent)	Only one dormant application allowed per season	Apply before fall rains. Use on yellow varieties may cause discoloration. To avoid, pick before spraying.
Between silver-tip and green-tip: Apple Scab, Fireblight	4.0 – 12.0 (2.0 – 6.0 lbs of metallic equivalent)	Only one application allowed per season	ATTENTION: Phytotoxicity may occur from late application. (Discontinue use when green-tip is 1/2 inch.)
Bloom & Growing Season: Fireblight	1.0 (0.5 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. NOTE: Crop injury may occur from extended spray schedule. Not intended for fresh market apples due to possible russetting. The addition of 1 – 3 lbs of lime per pound of Blue Shield DF may reduce injury.
Crown or Collar Rot (Phytophthora cactorum)	1.0 (0.5 lbs of metallic equivalent) (See comment)	5	Apply either in early spring or in fall after harvest each year. Do not use if soil pH is below 5.5 or copper toxicity may result. 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.
RESTRICTIONS 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 lbs/A (0.5 lbs. metallic copper equivalent) Maximum annual application rate is 32.0 lbs/A (16 lbs. metallic copper equivalent)			

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POTATOES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Early & Late Blight	1.0 – 5.0 (0.5 – 2.5 lbs of metallic equivalent)	5	Apply 1.0 - 1.5 pounds product at 5 to 10 day intervals starting when plants are 2 - 6 inches high until 2 weeks before harvest in locations where disease is light and up to 3 to 5 pounds per acre where disease is more severe. Under conditions of severe disease, control with Blue Shield DF will be improved by tank mixing with other compatible fungicides registered for use on potatoes. Read and follow all label instructions of tank mix partners.
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)			

SPINACH			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose, Blue Mold, Cercospora Leafspot, Downy Mildew, White Rust,	1.5 (0.75 lbs of metallic equivalent)	7	Begin applications when disease first appears or conditions favor disease development. Repeat at 7 to 10 day intervals as needed. NOTE: Flecking may occur on spinach leaves.
RESTRICTIONS 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)			

STRAWBERRIES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Downy Mildew Leaf Spot Leaf Blight	2.0 - 3.0 (1.0 – 1.5 lbs of metallic equivalent)	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.
RESTRICTIONS 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)			

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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. Use the higher rate when disease is severe.
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 (1.0 – 2.0 lbs of metallic equivalent)	7	Make two applications as a full cover spray. Use a minimum of 100 gallons water per acre. Make first application at bud crack and second application 7 to 14 days later at 10% leaf expansion.
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)			

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. Minimum retreatment interval for Greenhouse tomatoes is 3 days.
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. Minimum retreatment interval for Greenhouse tomatoes is 3 days.
RESTRICTIONS Maximum single application rate is 3.2 lb/A (1.6 lbs metallic copper equivalent) Maximum annual application rate is 16.0 lbs/A (8.0 lbs metallic copper equivalent)			

TURFGRASS			
DISEASE	APPLICATION RATE (pints)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Algae	3.0 – 6.0 (1.5 – 3.0 lbs of metallic equivalent)	10	May be used as a maintenance spray as needed. May be used alone or in combination with fungicides such as dithiocarbamates. 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.
RESTRICTIONS 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)			

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WALNUTS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Walnut Blight	4.0 – 6.3 (2.0 – 3.15 lbs of metallic equivalent)	7	Apply first spray at early pre-bloom when catkins are partially expanded. 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. 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 Xanthomonas bacteria are present.
RESTRICTIONS Maximum single application rate is 6.3 lbs/A (3.15 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)	7	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 crop. 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: Blue Shield 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 Blue Shield DF can be used safely prior to commercial use. In a small area, apply the recommended 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 Blue Shield DF according to specific rates given for these crops in pounds per acre or pounds per 100 gallons.

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One level tablespoon of Blue Shield DF per 1,000 square feet is equivalent to 1 pound per acre. One half tablespoon of Blue Shield DF per gallon of water is equivalent to 1 pound per 100 gallons. Blue Shield 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 0.8	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 7 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 7 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 7 to 10 day intervals or as needed depending on disease severity. Use higher rate for severe disease.

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ORNAMENTALS

Notice to User: Plant sensitivities to BLUE SHIELD 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 BLUE SHIELD DF. Neither the manufacturer nor seller has determined whether or not BLUE SHIELD DF can be safely used on ornamental or nursery plants not listed on this label. The user should determine if BLUE SHIELD 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 BLUE SHIELD 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.

BLUE SHIELD 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.