

45002-8

07-12-2011

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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:

45002-8

Date of Issuance:

Term of Issuance:
Unconditional

JUL 12 2011

Name of Pesticide Product:

Basic Copper 53

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 8, 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 12 2011

Tony Kish, Product Manager (2X)
Fungicide Branch/Registration Division/OPP/OCSP (7504P)

Notice of Pesticide Reregistration
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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 08/23/2010
Acute Toxicity Review DP363877 dated 04/14/2009
Product Chemistry Review DP380115 dated 07/29/2010

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BASIC COPPER 53

ACTIVE INGREDIENT:		
Basic Copper Sulfate (CAS # 1344-73-6)	94.33%*
OTHER INGREDIENTS:	5.67%
TOTAL:	100.00%

(*Metallic copper equivalent 53.0%)

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

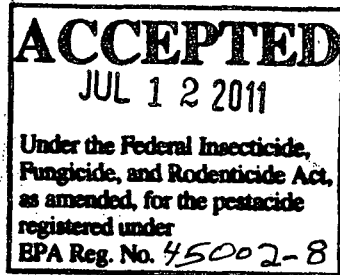
FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED	<ul 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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. See Inside Booklet for Additional Precautionary Statements.	

EPA Reg. No. 45002-8

EPA Est. No. 45002-MEX-2

NET CONTENTS:

MANUFACTURED FOR:
Albaugh, Inc.
Ankeny, IA 50021



PRECAUTIONARY STATEMENTS

WARNING

Hazards To Humans And Domestic Animals

Causes substantial but temporary eye injury. 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.

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

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

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.

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 put on 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.

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. 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 provide the following instructions are followed.

Notify workers of the application by warning them orally and by posting warning signs at the entrances to treated areas.

Not for greenhouse use.

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 over long-sleeved shirt and pants
- Chemical resistant gloves made of any waterproof material
- Chemical resistant footwear plus socks
- Chemical resistant headgear if overhead exposure
- Protective eyewear

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: Keep in a cool place. Do not store at temperatures below 32°F. Open dumping is prohibited. Do not reuse empty 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: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available or dispose of in a sanitary landfill, or incineration or if allowed by state and local-authorities by burning. If burned, stay out of smoke.

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, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform 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.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

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

Do not apply when wind speed favors drift beyond the area intended for treatment.

SPRINKLER CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

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

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

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

Do not apply when wind speed favors drift beyond the area intended for treatment.

To mix Basic Copper 53 for application, add it to the pesticide supply tank containing sufficient water to maintain a pumpable fluid for your equipment. Continuous agitation is required in the pesticide supply tank until it is completely empty.

If other known compatible pesticides or products are tank-mixed, add this product and other wettable powders first to the water, followed by flowables, liquids, and lastly emulsifiable products. This product can be mixed with other fungicides or insecticides. Basic Copper 53 may be used alone or in combination with other fungicides and insecticides with caution until experience with tank mix is developed. Observe all cautions and limitations stated on the label of product used in the tank mixtures. Tank mixes must observe the more restrictive uses of the directions. In lateral move, end tow, side (wheel) roll, solid set, or hand move systems inject the product in the last 15 to 30 minutes to each set allowing sufficient time for all of the required pesticide to be applied by all sprinkler heads. In continuous moving systems, inject this product-water mixture continuously applying the labeled rate per acre for that crop. In continuous moving systems, best disease control results when water applications are low, but do not exceed one inch per acre.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and the method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or 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 length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

For groundboom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy. Handlers may be in the area during application.

DIRECTIONS FOR DILUTION AND RECOMMENDATIONS FOR USE

Mixing Sprays: Fill the spray tank about 1/3 full of water and with agitator running, add the required amount of Basic Copper 53. Keep agitator running while adding the remaining water and any other products to the spray tank. Continue agitation until spraying is finished and tank has been emptied. When mixed with other products proven or known to be compatible, generally add wettable powders first, followed in order by flowables, followed by emulsifiable concentrates.

Applying Spray Mixture: On most crops, sprays can be applied with conventional dilute sprays in aerial application unless specifically prohibited on the label. Recommended use rates are generally stated in lbs. of Basic Copper 53 per acre sprayed. When using each type of sprayer, follow that equipment manufacturer's recommendation, or that of the State Extension Service for the volume of spray water per acre on each crop. Mix the recommended lbs. of Basic Copper 53 for each crop in sufficient spray water for thorough coverage of the crop to be sprayed. The following spray volumes are general suggestions for use.

For Conventional dilute spray: Apply spray to point of spray run-off. On vegetable and field crops this is usually 100 or more gallons per acre and 250 to about 1000 gallons per acre for fruits and nuts depending on tree type, size and foliage.

For concentrate spray: On vegetable and field crops, use 5 or more gallons spray per acre, and on fruit and nut trees use 25 or more gallons per acre.

For aerial spray: Use 3 to 15 gallons per acre. Note: Be sure aerial application spray concentration will not harm foliage.

Basic Copper 53 can be applied up to day of harvest.

ALFALFA			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Cercospora Leaf Spot Leptosphaeriina Leaf Spot	1.0 (0.53 lbs Cu/A)	30	Apply 10 to 14 days before each harvest or earlier if disease threatens. NOTE: Spray injury may occur with sensitive varieties such as Lahontan.
RESTRICTIONS Maximum single application rate is 1.0 lbs product/Acre (0.53 lbs. metallic copper equivalent) Maximum annual application rate is 2.1 lbs product/Acre (1.12 lbs metallic copper equivalent)			

APPLES - Fall & Late Dormant			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose European Canker Pseudomonas Syringae	8.0 – 15.0* (4.24 - 8.0 lbs Cu/A)	Only one dormant application allowed per season	Apply after harvest before fall rains. Use higher rates under severe disease conditions. *Do not apply more than 11.3 lbs of product/Acre (6.0 lbs Cu/A) if between silver-tip and green-tip stage.
APPLES - Bloom & Growing Season			
Fireblight	0.9 - 2.8 (0.48 - 1.5 lbs Cu/A)	5	ATTENTION: Phytotoxicity may occur from late application (Discontinue use when green-tip is 1/2 inch)
Black Rot, Black Pox, Brooks Spot Flyspeck Sooty Blotch Summer Scab White Rot			Recommended for processing apples only as fruit russeting and leaf spotting are likely to occur. NOTE: Do not apply prior to 4 th cover spray and make only 2 applications in rotation with other registered fungicides. Use of copper on weak or stressed trees can increase potential for leaf spotting.
Crown Rot, Collar Rot	See Comment	Make only one application per year	Mix 0.4 lbs of product (0.21 lbs Cu) in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in late fall after harvest. NOTE: Do not use if soil pH is below 5.5 since copper toxicity may result
RESTRICTIONS Maximum single dormant season application rate is 15.0 lbs product/Acre (8.0 lbs. metallic copper equivalent) Maximum single growing season application rate is 2.8 lb/A (1.5 lbs. metallic copper equivalent) Maximum annual application rate is 30.0 lbs product/Acre (16.0 lbs. metallic copper equivalent)			

ALMONDS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant Season: Bacterial Blast (Pseudomonas) Bacterial Canker Shot-Hole	10.0 – 15.0 (5.3 - 8.0 lbs Cu/A)	7	Make first application before fall rains and a second at late dormant. Use higher rates when rainfall is heavy and disease pressure is high. One pint of superior-type oil per 100 gallons of water may be added.
Bloom/growing Season: Bacterial Blast	2.0 – 2.8 (0.1.06 - 1.48 lbs Cu/A)	5	For bacterial blast control in sprinkler irrigated orchards or where disease is severe, apply 1.5 to 2.8 pounds of product per acre post-bloom at 2 week intervals or just before irrigation. NOTE: Injury may occur from post-bloom sprays on almonds, especially on neplus varieties.
RESTRICTIONS Maximum single dormant application rate is 15.0 lbs product/Acre (8.0 lbs. metallic copper equivalent) Maximum single bloom/growing application rate is 2.8 lbs product/Acre (1.5 lbs. metallic copper equivalent) Maximum annual application rate is 34.0 lbs product/Acre (18.0 lbs metallic copper equivalent)			

APRICOTS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant Season: Coryneum blight (Shot hole)	10.0 – 15.0 (5.3 - 8.0 lbs Cu/A)	7	Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.
Bloom/growing season: Coryneum Blight (Shot Hole) Blossom Brown Rot	2.0 – 2.8 (1.06 - 1.5 lbs Cu/A)	5	Apply at popcorn to full bloom as a full cover spray. To avoid spray injury, do not apply after bloom.
RESTRICTIONS Maximum single dormant season application rate is 15.0 lbs product/Acre (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 2.8 lbs product/Acre (1.5 lbs metallic copper equivalent) Maximum annual application rate is 34.0 lbs product/Acre (18.0 lbs metallic copper equivalent)			

ATEMOYA, SUGAR APPLE (Annona)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthraco nose	4.0 – 5.9 (2.12 - 3.15 lbs Cu/A)	7	Make initial application just before flowering and repeat on a weekly schedule.
RESTRICTIONS Maximum single dormant application rate is 5.9 lbs product/Acre (3.15 lbs. metallic copper equivalent) Maximum annual application rate is 23.7 lbs product/Acre (12.6 lbs metallic copper equivalent)			

AVOCADOS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthraco nose Blotch Scab	5.0 – 5.9 (2.65 - 3.15 lbs Cu/A)	14	Apply when bloom buds begin to swell. Continue application at 2 - 4 week intervals. Use higher rates when conditions favor disease development.
RESTRICTIONS Maximum single application rate is 5.9 lbs product/Acre (3.15 lbs metallic copper equivalent) Maximum annual application rate is 35.6 lbs product/Acre (18.9 lbs metallic copper equivalent)			

BANANA			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Sigatoka	1.0 – 2.0 (0.53 - 1.05 lbs Cu/A)	7	Apply by air in 10 gallons of water combining 0.5 gallon of agricultural oil. Apply on a 7-14 day schedule throughout the wet season. Apply at 21-day intervals during dry periods.
Black Pitting	1.0 – 2.0 (0.53 - 1.05 lbs Cu/A)	7	Apply by ground in 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 fruit emergence.
RESTRICTIONS Maximum single dormant application rate is 2.0 lbs product/Acre (1.05 lb. metallic copper equivalent) Maximum annual application rate is 35.6 lbs product/Acre (18.9 lbs metallic copper equivalent)			

BEANS (Dry, Green)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Blight (Halo & Common) Brown Spot Common Blight Downy Mildew	1.5 (0.79 lbs Cu/A)	7	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 14 day schedule depending upon environmental conditions.
RESTRICTIONS Maximum single application rate is 1.5 lbs product/Acre (0.79 lbs. metallic copper equivalent) Maximum annual application rate is 8.9 lbs product/Acre (4.74 lbs metallic copper equivalent)			

BLUEBERRIES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Canker	2.0 – 3.9 (1.06 - 2.1 lbs Cu/A)	7	Make first application before fall rains and a second application 4 weeks later. Make additional applications if disease pressure persists.
RESTRICTIONS Maximum single application rate is 3.9 lbs product/Acre (2.1 lbs. metallic copper equivalent) Maximum annual application rate is 15.8 lbs product/Acre (8.4 lbs metallic copper equivalent)			

BRAMBLES (Aurora, Blackberry, Boysen, Cascade, Chehalems, Logan, Marion, Raspberry, Santiam & Thornless Evergreens)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose Cane Spot Leaf Spot Pseudomonas Blight Purple Blotch Yellow Rust	2.0 – 3.7 (1.06 - 2.0 lbs Cu/A)	7	Make fall application after harvest. Apply delayed dormant spray after training in the spring.
Anthracnose Cane Spot Leaf Spot Pseudomonas Blight Purple Blotch Yellow Rust			Apply when leaf buds begin to open and repeat when lower buds show white. NOTE: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist environmental conditions. Discontinue applications if signs of crop injury appear.
RESTRICTIONS Maximum single application rate is 3.7 lbs product/Acre (2.0 lbs metallic copper equivalent) Maximum annual application rate is 18.8 lbs product/Acre (10.00 lbs metallic copper equivalent)			

CRUCIFERS (Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collard Greens, Mustard Greens, & Turnip Greens)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Downy Mildew Black Leaf Spot (Alternaria) Black Rot (Xanthomonas)	1.0 (0.53 lbs Cu/A)	7	Apply in a minimum of 25 GPA at 7-10 day intervals. Begin applications after transplants are set in the field or shortly after emergence of field seeded crops or when conditions favor disease development. Use higher rates when conditions favor disease. NOTE: Reddening of older leaves may occur on broccoli and a flecking of wrapper leaves may occur on cabbage.
RESTRICTIONS Maximum single application rate is 1.0 lb/A (0.53 lbs metallic copper equivalent) Maximum annual application rate is 5.0 lbs product/Acre (2.65 lbs metallic copper equivalent)			

CACAO			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Black Pod	3.0 - 4.2 (1.59 - 2.25 lbs Cu/A)	14	Begin applications at the start of the rainy season and continue while infection periods persist. Apply at 14-21 day intervals in high rainfall areas.
RESTRICTIONS Maximum single dormant application rate is 4.2 lbs product/Acre (2.25 lbs. metallic copper equivalent) Maximum annual application rate is 29.7 lbs product/Acre (15.75 lbs metallic copper equivalent)			

CARAMBOLA			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracoese	2.5 - 3.9 (1.3 - 2.1 lbs Cu/A)	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 dormant application rate is 3.9 lbs product/Acre (2.1 lbs. metallic copper equivalent) Maximum annual application rate is 19.8 lbs product/Acre (10.5 lbs metallic copper equivalent)			

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CARROTS			
DISEASE	APPLICATION RATE (lbs Product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Carrot Blight (Cercospora)	1.0 - 1.9 (0.53 - 1.0 lbs Cu/A)	7	When disease threatens, apply at 7 - 10 day intervals.
RESTRICTIONS Maximum single application rate is 1.9 lbs Product/Acre (1.0 lbs metallic copper equivalent) Maximum annual application rate is 9.4 lbs Product/Acre (5.0 lbs metallic copper equivalent)			

CELERY & CELERIAC			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Blight Cercospora Early Blight Septoria Late Blight	1.0 - 1.9 (0.53 - 1.0 lbs Cu/A)	7	Begin applications when plants are first established in the field, repeating at 7 day intervals depending on disease severity and environmental conditions.
RESTRICTIONS Maximum single application rate is 1.9 lbs product/Acre (1.0 lbs metallic copper equivalent) Maximum annual application rate is 10.0 lbs product/Acre (5.3 lbs metallic copper equivalent)			

CHERRY			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant & Late Bloom Season: Dead Bud (<i>Pseudomonas syringae</i>) Coryneum Blight	10.0 - 15.0 (5.30 - 8.0 lbs Cu/A)	7	In orchards where the disease is severe a second spray should also be applied shortly after harvest.
Bloom & Growing Season: Brown Rot Blossom	2.0 - 2.8 (1.06 - 1.5 lbs Cu/A)	5	Applied at popcorn and full bloom.
RESTRICTIONS Maximum single dormant season application rate is 15.0 lbs product/Acre (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 2.8 lbs product/Acre (1.5 lbs metallic copper equivalent) Maximum annual application rate is 33.9 lbs product/Acre (18.0 lbs metallic copper equivalent)			

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CHIVES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Downy Mildew	1.0 (0.53 lbs Cu/A)	7	Begin applications when plants are established in the field. Repeat applications every 7 to 10 days as dictated by disease conditions. If disease pressure is high, use the shorter spray interval.
RESTRICTIONS Maximum single dormant application rate is 1.0 lb/A (0.53 lbs. metallic copper equivalent) Maximum annual application rate is 5.0 lbs product/Acre (2.65 lbs metallic copper equivalent)			

CITRUS (Grapefruit, Kumquat, Lemon, Orange, Pummelo, Tangelo, Tangerine & Lime)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Melanose Scab Pink Pitting Greasy Spot Brown Rot Alternaria	4.0 – 5.9 (2.12 - 3.15 lbs Cu/A)	7	Apply as pre-bloom and post-bloom sprays. May be used in dilute or concentrate sprays at equivalent rates. For concentrate application use a minimum 10 gallons per acre. For Scab suppression, make 2 applications, one just before trees begin to flush and repeat at 2/3 petal fall. For Melanose, make application 1- 3 weeks after petal fall and repeat 14 days later if necessary.
Citrus Canker (SUPPRESSION ONLY)	5.9 (3.15 lbs Cu/A)	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.
RESTRICTIONS Maximum single application rate is 5.9 lbs product/Acre (3.15 lbs metallic copper equivalent) Maximum annual application rate is 23.7 lbs product/Acre (12.6 lbs metallic copper equivalent)			

COFFEE			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Coffee Berry Disease	2.0 – 3.9 (1.06 - 2.1 lbs Cu/A)	14	Apply first spray after flowering and before onset of rains and then at 21-28 day intervals until picking.
Bacterial Blight			Begin spray program applications before the onset of the rains and continue throughout the rainy season at 14-21 day intervals. The critical time of spraying to control this disease is just before, during, and after flowering especially when coinciding with wet weather.
Leaf Rust (Hemileiavastatrix)	2.0 (1.06 lbs Cu/A)		Apply before the onset of rain and then at 21-day intervals while the rains continue.
Iron Spot (Cercospora) Pink Disease (Corticium)	1.0 – 2.0 (0.53 - 1.06 lbs Cu/A)		Use concentrate or dilute spray. Begin treatments at the start of the wet season and continue at monthly intervals for three applications.
NOTE: Use higher rates or shorter intervals when rainfall is heavy and disease pressure is high.			
RESTRICTIONS			
Maximum single dormant application rate is 3.9 lbs product/Acre (2.1 lbs. metallic copper equivalent)			
Maximum annual application rate is 23.7 lbs product/Acre (12.6 lbs metallic copper equivalent)			

CRANBERRIES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Canker	3.0 – 3.9 (1.59 - 2.1 lbs Cu/A)	7	Make first application in late bloom. One or two additional applications at 7 - 14 day intervals may be required depending upon disease severity.
Rose Bloom			Apply three sprays on 7 - 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 7 - 14 day intervals may be required depending upon disease severity.
Leaf Blight Red Leaf Spot Stem Blight Tip Blight (Monilinia)			Apply delayed dormant spray in the spring. Repeat at 7 - 14 day intervals as needed through pre-bloom.
RESTRICTIONS			
Maximum single dormant application rate is 3.9 lbs product/Acre (2.1 lbs. metallic copper equivalent)			
Maximum annual application rate is 23.7 lbs product/Acre (12.6 lbs metallic copper equivalent)			

CUCURBITS (Cantaloupes, Casaba, Chayote, Cucumber, Guard, Honeydew, Muskmelon, Pumpkin, Squash & Watermelon)			
DISEASE	APPLICATION RATE (lbs 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)	2.0 (1.05 lbs Cu/A)	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 product/Acre (1.05 lbs metallic copper equivalent) Maximum annual application rate is 10.0 lbs product/Acre (5.25 lbs metallic copper equivalent)			

DILL			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Phoma Leaf Spot	1.0 - 1.5 (0.53 - 0.79 lbs Cu/A)	7	Begin applications when plants are first established in the field and repeat at 7 to 10 day intervals depending upon disease severity and environmental conditions. If disease pressure is high, use the shorter spray interval and the higher rate.
RESTRICTIONS Maximum single dormant application rate is 1.5 lbs product/Acre (0.79 lbs. metallic copper equivalent) Maximum annual application rate is 7.4 lbs product/Acre (3.95 lbs metallic copper equivalent)			

CURRANTS & GOOSEBERRY			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose Leaf Spot	4.7 - 7.5 (2.5 - 4.0 lbs Cu/A)	10	Make applications, starting after harvest, before bloom and after petal fall. 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 7.5 lbs product/Acre (4.0 lbs metallic copper equivalent) Maximum annual application rate is 30.0 lbs product/Acre (16.0 lbs metallic copper equivalent)			

DOUGLAS FIR			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Rhabdocine Needlecast	3.7 (2.0 lbs Cu/A)	7	Begin applications at bud break and repeat at 7-28 day intervals based on disease pressure and environmental conditions. Apply in a tank mix with another registered compatible fungicide if moderate to severe disease pressure is present.
RESTRICTIONS Maximum single dormant application rate is 3.7 lbs product/Acre (2.0 lbs. metallic copper equivalent) Maximum annual application rate is 37.7 lbs product/Acre (20.0 lbs metallic copper equivalent)			

EGGPLANT			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Alternaria Blight Anthracnose Phomopsis	1.5 (0.79 lbs Cu/A)	7	Begin applications prior to development of disease symptoms. Repeat sprays at 7 - 10 day intervals as needed depending on disease severity.
RESTRICTIONS Maximum single application rate is 1.5 lbs product/Acre (0.79 lbs metallic copper equivalent) Maximum annual application rate is 15.0 lbs product/Acre (7.9 lbs metallic copper equivalent)			

ENDIVE, ESCAROLE, LETTUCE			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Downy Mildew	1.0 - 1.9 (0.53 - 1.01 lbs Cu/A)	5	Begin treatment when disease first appears and repeat every 5 - 10 days as needed to suppress disease.
RESTRICTIONS Maximum single application rate is 1.9 lbs product/Acre (1.0 lbs metallic copper equivalent) Maximum annual application rate is 15.0 lbs product/Acre (8.0 lbs metallic copper equivalent)			

FILBERTS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Blight (Post Harvest application)	8.0 – 11.3 (4.24 - 6.0 lbs Cu/A)	14	Apply as a post harvest spray. In seasons of heavy rainfall, apply a second spray when three fourths of the leaves have dropped. Add 1 pint of superior-type oil per 100 gallons of water. Use higher rates when rainfall is heavy and disease pressure is high.
Eastern Filbert Blight			Apply as a dilute spray in adequate water for thorough coverage. Make initial application after harvest in October before 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. Use higher rates when rainfall is heavy and disease pressure is high.
RESTRICTIONS Maximum single application rate is 11.3 lbs product/Acre (6.0 lbs metallic copper equivalent) Maximum annual application rate is 45.2 lbs product/Acre (24.0 lbs metallic copper equivalent) Note: Permitted only in Washington and Oregon			

GINSENG			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Alternaria Leaf Blight Stem Slight	1.0 – 2.0 (0.53 - 1.05 lbs Cu/A)	7	Use as a tank mix with Rovral 50W in 100 gallons of water. Begin applications as soon as plants have emerged in spring. Applications should be repeated every 7 days until plants become dormant. Apply fungicides at least 8 hours before rain. Use of a spreader-sticker or sticker is advised. NOTE: Alternaria Leaf and Stem Blight is most severe in humid conditions such as those found in the dense canopies of 2 to 4 year old ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.
RESTRICTIONS Maximum single dormant application rate is 2.0 lbs product/Acre (1.05 lb. metallic copper equivalent) Maximum annual application rate is 10.0 lbs product/Acre (5.25 lbs metallic copper equivalent)			

GRAPES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Black Rot Downy Mildew Phomopsis Powdery Mildew	4.0 – 5.6 (2.1 - 3.0 lbs Cu/A)	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 Rosette.
RESTRICTIONS Maximum single application rate is 5.6 lbs product/Acre (3.0 lbs metallic copper equivalent) Maximum annual application rate is 37.7 lbs product/Acre (20.0 lbs metallic copper equivalent)			

GUAVA			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthrachnose Red Algae	2.0 – 2.3 (1.06 - 1.23 lbs Cu/A)	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water volume for thorough coverage.
RESTRICTIONS Maximum single dormant application rate is 2.3 lbs product/Acre (1.23 lbs. metallic copper equivalent) Maximum annual application rate is 9.2 lbs product/Acre (4.92 lbs metallic copper equivalent)			

HOPS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Downy Mildew	1.0 (0.53 lbs Cu/A)	10	Make crown treatment after pruning, but before training. After training, make additional applications at 10 day intervals as needed.
RESTRICTIONS Maximum single dormant application rate is 1.0 lbs product/Acre (0.53 lbs. metallic copper equivalent) Maximum annual application rate is 5.0 lbs product/Acre (2.65 lbs metallic copper equivalent)			

KIWIS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Erwinia herbicola Pseudomonas fluorescens Pseudomonas syringae	2.0 – 3.9 (1.06 - 2.1 lbs Cu/A)	30	Apply in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of three applications may be made.
RESTRICTIONS Maximum single dormant application rate is 3.9 lbs product/Acre (2.1 lbs. metallic copper equivalent) Maximum annual application rate is 11.8 lbs product/Acre (6.3 lbs metallic copper equivalent)			

MACADAMIA			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose	4.4 (2.36 lbs Cu/A)	7	Begin applications at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Apply during raceme development and bloom periods. Apply in sufficient water for thorough coverage. Use higher rates when conditions favor disease development.
Phytophthora Blight (P. capsici) Raceme Blight (Botrytis cinerea)	1.5 – 3.0 (0.79 - 1.59 lbs Cu/A)		
RESTRICTIONS Maximum single dormant application rate is 4.4 lbs product/Acre (2.36 lbs. metallic copper equivalent) Maximum annual application rate is 17.8 lbs product/Acre (9.44 lbs metallic copper equivalent)			

MAMEY SAPOTE			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Algal Leaf Spot Anthracnose	3.0 – 3.9 (1.59 - 2.1 lbs Cu/A)	14	Apply when conditions favor disease development. Repeat on 14-28 day schedule as disease severity and environmental conditions dictate. Use higher rates when conditions favor disease development.
RESTRICTIONS Maximum single dormant application rate is 3.9 lbs product/Acre (2.1 lbs. metallic copper equivalent) Maximum annual application rate is 15.8 lbs product/Acre (8.4 lbs metallic copper equivalent)			

MANGO			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose	4.9 - 6.0 (2.6 - 3.2 lbs Cu/A)	30	Apply monthly after fruit set until harvest. Consult Extension Service for local recommendations.
RESTRICTIONS Maximum single application rate is 6.0 lbs product/Acre (3.2 lbs metallic copper equivalent) Maximum annual application rate is 90.5 lbs product/Acre (48.0 lbs metallic copper equivalent)			

LIVE OAK			
DISEASE	APPLICATION RATE	RETREATMENT INTERVAL	COMMENT
Ball moss Spanish moss	Mix 3.0 – 3.7 lbs per 100 gallons of water. (1.59 - 2.0 lbs Cu)	A second application may be required after 12 months.	Apply in spring after heavy rain, using 1.5 gallons of spray per foot of tree height. Make sure to wet tufts thoroughly. NOTE: Basic Copper 53W may be injurious to some ornamentals grown under live oaks. This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.
RESTRICTIONS Maximum single application rate is 3.7 lbs product/Acre (2.0 lbs metallic copper equivalent) Maximum annual application rate is 37.7 lbs product/Acre (20.0 lbs metallic copper equivalent)			

OLIVES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Peacock Spot Olive Knot	5.0 – 11.3 (2.65 - 6.0 lbs Cu/A)	30	Apply post harvest before winter rains fall. A second application in early spring should be made if disease is severe. Apply the high rate or heavy disease pressure or when conditions favor disease development.
RESTRICTIONS Maximum single application rate is 11.3 lbs product/Acre (6.0 lbs metallic copper equivalent) Maximum annual application rate is 33.9 lbs product/Acre (18.0 lbs metallic copper equivalent)			

ONION & GARLIC			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Purple Blotch Downy Mildew	1.9 (1.0 lbs Cu/A)	7	Begin when plants are 4 to 6 inches high and repeat at 7-10 day intervals as needed depending upon disease pressure. NOTE: Can cause phytotoxicity to leaves.
RESTRICTIONS Maximum single application rate is 1.9 lbs product/Acre (1.0 lbs metallic copper equivalent) Maximum annual application rate is 11.3 lbs product/Acre (6.0 lbs metallic copper equivalent)			

PAPAYA			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose	4.0 - 4.9 (2.12 - 2.63 lbs Cu/A)	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, such as Kinetic®, may be desirable especially during periods of heavy rains.
RESTRICTIONS Maximum single application rate is 4.9 lbs product/Acre (2.63 lbs metallic copper equivalent) Maximum annual application rate is 40.0 lbs product/Acre (21.2 lbs metallic copper equivalent)			

PARSLEY			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Blight (Pseudomonas sp.)	1.5 - 1.9 (0.79 - 1.0 lbs Cu/A)	10	Begin applications when plants are first established in the field and repeat at 10 day intervals. Use the higher rates when conditions favor disease.
RESTRICTIONS Maximum single dormant application rate is 1.9 lbs product/Acre (1.0 lb. metallic copper equivalent) Maximum annual application rate is 3.7 lbs product/Acre (2.0 lbs metallic copper equivalent)			

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PASSION FRUIT			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose	3.0 – 4.4 (1.59 - 2.36 lbs Cu/A)	7	Make initial application just before flowering and repeat every 7 days until just before harvest. Apply in sufficient water volume for thorough coverage.
RESTRICTIONS Maximum single dormant application rate is 4.4 lbs product/Acre (2.36 lbs. metallic copper equivalent) Maximum annual application rate is 17.8 lbs product/Acre (9.44 lbs metallic copper equivalent)			

PEACHES & NECTARINES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant Season: Bacterial Blast (Pseudomonas) Bacterial Canker Bacterial Spot (Xanthomonas) Leaf Curl Shot-Hole	10.0 – 15.0 (5.3 - 8.0 lbs Cu/A)	7	Make dormant application after leaf drop and/or prior to bud swell. Can be used with superior type oils.
Bloom & Growing Season: Brown Rot Blossom Blight (California)	2.0 – 2.8 (1.06 - 1.5 lbs Cu/A)	5	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.
RESTRICTIONS Maximum single dormant application rate is 15.0 lbs product/Acre (8.0 lbs metallic copper equivalent) Maximum single growing application rate is 2.8 lbs product/Acre (1.5 lbs metallic copper equivalent) Maximum annual application rate is 34.0 lbs product/Acre (18.0 metallic copper equivalent)			

PEANUTS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Cercospora Leaf Spot	1.5 (0.79 lbs Cu/A)	7	Begin spraying 25-40 days after planting or when disease symptoms appear. Use sufficient water to get adequate coverage. Continue applications at 7 - 14 day intervals. Reduce spray interval to 7 days during humid weather. Use higher rates when conditions favor disease.
RESTRICTIONS Maximum single application rate is 1.5 lbs product/Acre (0.79 lbs metallic copper equivalent) Maximum annual application rate is 8.9 lbs product/Acre (4.74 metallic copper equivalent)			

PEARS & QUINCE			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bloom & Growing Season: Fireblight	1.0 (0.53 lbs Cu/A)	5	Apply at 5 day intervals throughout bloom period. NOTE: Do not apply to d'Anjou pears. Excessive dosages may cause fruit russet.
Fall & Late Dormant: Pseudomonas blight	7.5 - 15.0 (4.0 - 8.0 lbs Cu/A)	Only one dormant application allowed per season	Apply before fall rain begins. NOTE: Excessive dosages may cause fruit russet.
RESTRICTIONS Maximum single dormant season application rate is 15.0 lbs product/Acre (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 1.0 lb/A (0.53 lbs metallic copper equivalent) Maximum annual application rate is 30.0 lbs product/Acre (16.0 lbs metallic copper equivalent)			

PEAS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Powdery Mildew	1.5 (0.79 lbs Cu/A)	7	Begin applications when disease symptoms first appear and repeat every 7 days as needed. Use higher rates when conditions favor disease development.
RESTRICTIONS Maximum single application rate is 1.5 lbs product/Acre (0.79 lbs metallic copper equivalent) Maximum annual application rate is 7.5 lbs product/Acre (3.95 lbs metallic copper equivalent)			

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PECANS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Shuck and Kernel rot (Phytophthora cactorum) Zonate leaf spot (Cristulariella pyramidalis)	2.0 – 3.9 (1.06 - 2.1 lbs Cu/A)	14	Apply in sufficient water for good coverage at 14 – 28 day intervals starting at kernel growth and continuing until shucks open. Use the higher rate and shorter intervals if frequent rainfall occurs.
Mosses Algae Lichen	See Comment	Make only one application per year	Mix 3 lbs (1.59 lbs Cu) per 100 gallons spray plus spreader-sticker, such as Kinetic®, on a dilute spray basis and apply in dormant season before buds swell, thoroughly wetting limbs and mosses.
RESTRICTIONS Maximum single application rate is 3.9 lbs product/Acre (2.1 lbs metallic copper equivalent) Maximum annual application rate is 15.8 lbs product/Acre (8.4 lbs metallic copper equivalent)			

PEPPERS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Spot	1.5 (0.79 lbs Cu/A)	3	Begin applications when conditions first favor disease development and repeat at 3-10 day intervals as needed depending on disease severity. Use shorter intervals when conditions are favorable for disease development.
RESTRICTIONS Maximum single application rate is 1.5 lbs product/Acre (0.79 lbs metallic copper equivalent) Maximum annual application rate is 22.3 lbs product/Acre (11.85 lbs metallic copper equivalent)			

PISTACHIOS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Botrycsphaeria Panicle Blight Botrytis Blight Late Blight (Alternaria alternata) Septoria Leaf Blight Shoot Blight	3.0 – 4.0 (1.59 - 2.12 lbs Cu/A)	14	Make initial application at bud swell and repeat on a 14 - 28 day schedule as dictated by disease conditions. If disease conditions are severe, use the higher rates and shorter spray interval.
RESTRICTIONS Maximum single dormant application rate is 4.0 lbs product/Acre (2.12 lbs. metallic copper equivalent) Maximum annual application rate is 16.0 lbs product/Acre (8.48 lbs metallic copper equivalent)			

PLUMS & PRUNES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Dormant Season: Coryneum blight (Shot hole)	10.0 – 15.0 (5.30 - 8.0 lbs Cu/A)	7	Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.
Blooming & Growing Season: Brown rot blossom blight	2.0 – 2.8 (1.06 - 1.5 lbs Cu/A)	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 15.0 lbs product/Acre (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 2.8 lbs product/Acre (1.5 lbs metallic copper equivalent) Maximum annual application rate is 34.0 lbs product/Acre (18.0 lbs metallic copper equivalent)			

POTATOES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Early & Late Blight	3.0 – 4.7 (1.59 - 2.5 lbs Cu/A)	5	Apply at 5 to 10 day intervals beginning when plants are 6 inches high until two weeks before harvest.
RESTRICTIONS Maximum single application rate is 4.7 lbs product/Acre (2.5 lbs metallic copper equivalent) Maximum annual application rate is 47.0 lbs product/Acre (25.0 lbs metallic copper equivalent)			

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SOYBEANS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Bacterial Blight (Pseudomonas syringae) Bacterial Pustule (Xanthomonas campestris)	1.0 – 1.5 (0.53 - 0.79 lbs Cu/A)	7	Begin applications from first node through third node development on the main stem with fully developed leaves beginning with true unifoliate leaves (V1 - V3 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7-10 day schedule when conditions continue to favor disease development.
Brown Spot (Septoria glycines)			Begin applications at full bloom to when pods are 3/16" in length (R2 - R3 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7-10 day schedule when conditions continue to favor disease development.
Pod & Stem Blight (Diaporthe phaseolorum and Phomopsis longicola]			Begin applications when seed pod is 1/8" long through beginning pod maturity (R5 - R7 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7-10 day schedule if conditions continue to favor disease development.
Powdery Mildew (Microsphaera manshurica)			Begin applications when conditions favor disease development (cool humid nights and mild daytime temperatures). Continue on a 7-10 day schedule if weather conditions remain cool and wet.
Downy Mildew (Peronospora manchurica)			Begin applications when conditions favor disease development (high humidity and cool temperatures). Continue on a 7-10 day schedule if weather conditions remain cool and wet.
Frogeye Leaf Spot (Cercospora sojina)			Begin applications when wet conditions exist. Continue on a 7-10 day schedule when conditions are favorable for disease development.
Cercospora Leaf Blight (Cercospora kikuchii)			Begin applications when seed pod is 1/8" long through beginning pod maturity (R5 - R7 growth stages). Continue on a 7-10 day schedule when conditions are favorable for disease development.
Alternaria Leaf Spot (Alternaria spp.)			Apply when mechanical injury, insect damage or other disease has occurred.
RESTRICTIONS Maximum single dormant application rate is 1.5 lbs product/Acre (0.79 lbs. metallic copper equivalent) Maximum annual application rate is 8.9 lbs product/Acre (4.74 lbs metallic copper equivalent)			

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SPINACH			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose Blue Mold Cercospora Leafspot Downy Mildew White Rust	1.5 (0.79 lbs Cu/A)	7	Begin applications when disease first appears or when conditions favor disease development. Repeat at 7-10 day intervals as needed. Use shorter intervals when conditions favor disease development. NOTE: Flecking may occur on spinach leaves.
RESTRICTIONS Maximum single application rate is 1.5 lbs product/Acre (0.79 lbs metallic copper equivalent) Maximum annual application rate is 7.4 lbs product/Acre (3.95 lbs metallic copper equivalent)			

STRAWBERRIES			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Downy Mildew Leaf Spot Leaf Blight	2.0 - 2.8* (1.06 - 1.5 lbs Cu/A)	7	Begin application when plants are established and continue on a weekly schedule throughout season. Apply in at least 20 gallons of water. NOTE: Discontinue applications if signs of phytotoxicity appear. *Use higher rates only when disease pressure is severe.
RESTRICTIONS Maximum single application rate is 2.8 lbs product/Acre (1.5 lbs metallic copper equivalent) Maximum annual application rate is 15.4 lbs product/Acre (8.19 lbs metallic copper equivalent)			

SYCAMORE			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Anthracnose	2.0 - 3.8 (1.06 - 2.0 lbs Cu/A)	7	Apply as a full cover spray. Apply in 100 gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 to 10 days later (at 10% leaf expansion). Use higher rates when conditions favor disease development.
RESTRICTIONS Maximum single dormant application rate is 3.8 lbs product/Acre (2.0 lbs. metallic copper equivalent) Maximum annual application rate is 37.7 lbs product/Acre (20.0 lbs metallic copper equivalent)			

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SUGAR BEETS, TABLE BEETS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Cercospora Leaf Spot	2.0 – 2.5 (1.06 - 1.31 lbs Cu/A)	10	Begin applications when conditions first favor disease development and repeat at 10-14 day intervals as needed. Use the higher rate when disease is severe.
RESTRICTIONS Maximum single dormant application rate is 2.5 lbs product/Acre (1.31 lbs. metallic copper equivalent) Maximum annual application rate is 14.8 lbs product/Acre (7.86 lbs metallic copper equivalent)			

TOMATOES (Processed)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Early Blight	0.75 – 1.0 (0.40 - 0.53 lbs Cu/A)	3	Apply before fall rains.
Bacterial Speck			Use on yellow varieties may cause discoloration. To avoid discoloration, pick before spraying.
Bacterial Spot Anthracnose Gray Leaf Mold Gray Leaf Spot Septoria Leaf Spot Late Blight			Apply at 10-30 day intervals beginning when the disease threatens. Use more frequent applications when disease pressure is high. When disease threatens, apply at 3-10 day intervals. Use higher rate when disease is severe.
RESTRICTIONS Maximum single application rate is 1.0 lb/A (0.53 lbs metallic copper equivalent) Maximum annual application rate is 32.8 lbs product/Acre (17.4 lbs metallic copper equivalent)			

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TOMATOES (Fresh Market)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Early Blight	3.0 (1.6 lbs Cu/A)	3	Apply before fall rains. Use on yellow varieties may cause discoloration. To avoid discoloration, pick before spraying.
Bacterial Speck			Apply at 10-30 day intervals beginning when the disease threatens. Use more frequent applications when disease pressure is high.
Bacterial Spot Anthracnose Gray Leaf Mold Gray Leaf Spot Septoria Leaf Spot Late Blight			When disease threatens, apply at 3-10 day intervals. Use higher rate when disease is severe.
RESTRICTIONS Maximum single application rate is 3.0 lb/A (1.6 lbs metallic copper equivalent) Maximum annual application rate is 15.0 lbs product/Acre (8.0 lbs metallic copper equivalent)			

WALNUTS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Walnut Blight	4.0 - 7.5 (2.12 - 4.0 lbs Cu/A)	7	Apply first spray at early pre-bloom prior to or when catkins are partially expanded. Make additional applications at 7-10 day intervals during bloom and early nutlet stage as needed if 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. NOTE: Adequate control may not be obtained when copper tolerant strains of Xanthomonas bacteria are present.
RESTRICTIONS Maximum single application rate is 7.5 lbs product/Acre (4.0 lbs metallic copper equivalent) Maximum annual application rate is 60.3 lbs product/Acre (32.0 lbs metallic copper equivalent)			

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WATERCRESS			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Cercospora Leaf Spot	1.0 (0.53 lbs Cu/A)	7	Begin applications when plants are first established in the field, repeating at 7-14 day intervals depending on disease severity and environmental conditions. Do not exceed four applications per crop. Apply using ground equipment at no less than 50 gallons of water per acre.
RESTRICTIONS Maximum single dormant application rate is 1.0 lb/A (0.53 lbs. metallic copper equivalent) Maximum annual application rate is 4.0 lbs product/Acre (2.12 lbs metallic copper equivalent)			

WHEAT, OATS, BARLEY			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Helminth osporium Blotch Helminthosporium Spot Ssptoria Leaf Blotch	1.0 (0.53 lbs Cu/A)	10	Make first application at early heading and follow with second spray 10 days later if disease pressure persists.
RESTRICTIONS Maximum single dormant application rate is 1.0 lb/A (0.53 lbs. metallic copper equivalent) Maximum annual application rate is 2.0 lbs product/Acre (1.06 lb metallic copper equivalent)			

CONDITIONS OF SALE

LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Read the Conditions of Sale – Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Albaugh, Inc. (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Albaugh's election, one of the following:

1. Refund of the purchase price paid by the buyer or user for product bought, or
2. Replacement of the product used.

To the extent consistent with applicable law, the Company shall not be liable and any claims against the Company are waived for special, indirect, incidental, or consequential damages or expenses of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the forgoing conditions of sale and limitation of warranty, liability and remedies.