



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 1, 2023

Carolyn Miter
Registrations Specialist
Albaugh, LLC.
PO Box 2127
Valdosta, GA 31604

Subject: Registration Review Label Mitigation for Copper Compounds
Product Name: Basic Copper 50 HB
EPA Registration Number: 42750-168
Application Date: 1/2/2019
Decision Number: 591675

Dear Carolyn Miter:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Copper Compounds Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Page 2 of 2
EPA Reg. No. 42750-168
Decision No. 591675

If you have any questions about this letter, please contact Jaclyn Pyne by email at pyne.jaclyn@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington".

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

BASIC COPPER 50 HB

ACTIVE INGREDIENT:
 Basic Copper Sulfate 88.97%
 OTHER INGREDIENTS: 11.03%
 TOTAL: 100.00%

CAS # 1344-73-6
 (Metallic copper equivalent 50.0%)

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).

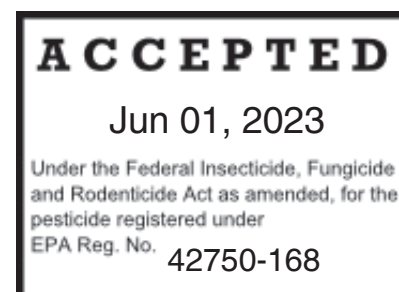
FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<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. 42750-168

EPA Est. No. _____

NET CONTENTS: _____ Lbs.

MANUFACTURED FOR:
 Albaugh, LLC
 1525 NE 36th Street
 Ankeny, IA 50021



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING. Causes substantial but temporary eye injury. Harmful if swallowed, absorbed through the skin, or inhaled. Do not get in eyes, on skin, or on clothing. Avoid contact with skin. Avoid breathing dust. Wear protective eyewear (face shield, goggles, safety glasses) long sleeved shirt, long pants, shoes, socks and chemical resistant gloves (such as or made out of any waterproof material, selection category A). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

1. Long-sleeved shirt and long pants
2. Waterproof gloves
3. Shoes plus socks
4. Protective eyewear such as safety glasses, goggles, or face shield.

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 CONTROLS STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

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

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment 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 long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear such as safety glasses, goggles, or face shield

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard 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.

RESTRICTIONS

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

PRODUCT INSTRUCTIONS

Use Basic Copper 50 HB as noted below and in crop-specific tables included in this label. Basic Copper 50 HB is adaptable to spraying from all types of spray equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. For dilute, high volume sprays use from 25 to 100 gallons of water per acre for most vegetable crops, 400 to 800 GPA for fruit and nut crops, and up to 1500 gallons per acre (GPA) as may be required for large citrus groves. For aerial spraying, 3 to 15 GPA are commonly used. For concentrate ground sprays, apply from 5 to 20 gallons per acre (GPA) for vegetable crops and 25 to 100 gallons per acre (GPA) for fruit and nut crops.

Add Basic Copper 50 HB slowly to a spray tank partially filled with water. Spreader-stickers, insecticides, nutrients, etc. should be added last. Basic Copper 50 HB is compatible with most commercially formulated spreader-stickers, oils and other fungicides. Observe all cautions and limitations on label of all products used in mixtures.

Do not apply Basic Copper 50 HB in a spray solution having a pH of less than 6.5 to minimize phytotoxicity risk.

Basic Copper 50 HB may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact of metal surfaces. Do not allow spray to contact cars, houses, lawn furniture, etc.

The following specific instructions are based on general applications. The recommendations of the State Agricultural

Extension Services should be closely followed as to timing, frequency, and number of sprays per season. When a range of doses are given for the use site, use the low dose when conditions are not favorable for disease development and use the high dose when conditions are favorable for disease development. Consult your State Agricultural Extension Service for guidance in determining what conditions favor diseases for the particular use site.

MANDATORY SPRAY DRIFT

AERIAL APPLICATIONS:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not release spray at a height great than 10 ft. above the vegetative canopy of water, unless a greater application height is necessary for pilot safety.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speed exceeds 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions

GROUND BOOM APPLICATIONS:

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

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

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

CONTROLLING DROPLET SIZE - Ground Boom

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

CONTROLLING DROPLET SIZE - Aircraft

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

BOOM HEIGHT - Ground Boom

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

RELEASE HEIGHT - Aircraft

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

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

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

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

CHEMIGATION INSTRUCTIONS

NOTE: 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 center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigations systems. Do not apply this product through any other type of irrigation system(s) which contain aluminum parts.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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 ensure 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 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 flow 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.

RESISTANCE MANAGEMENT

Basic Copper Sulfate - GROUP M01 FUNGICIDE

For resistance management, BASIC COPPER 53 contains basic copper sulfate, a Group M01 fungicide with a multi-site contact activity. Any fungal/bacterial population may contain individuals naturally resistant to BASIC COPPER 53 and other Group M01 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. Basic copper sulfate is an inorganic non-systemic protectant compound which are generally considered as a low-risk of developing resistance.

Because BASIC COPPER 53 is a protective and not systemic fungicide, thorough coverage of the plant surface must be maintained. A gradual or total loss of control may occur over time if plant growth or weathering reduces the foliage coverage.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of BASIC COPPER 53 or other Group M01 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an IPM program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact your local Albaugh representative at 1-800-247-8013 or local extension specialist to report resistance.

SPECIFIC USE INSTRUCTIONS

{**Note to reviewer:** Registrant may add or remove as needed the following statement pertaining to a local use restriction: “[Not for use in _____]”. (e.g. Not for use in California).}

ALFALFA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Cercospora Leaf Spot Leptosphaeriina Leaf Spot	0.5 – 1.0 (0.25 – 0.5 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/A (0.5 lbs. metallic copper equivalent) Maximum annual application rate is 2.0 lbs/A (1.0 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 – 12.0 (4.0 - 6.0 lbs Cu/A)	Only one dormant application allowed per season	Apply after harvest before fall rains. Use higher rates under severe disease conditions.
APPLES - Bloom & Growing Season			
Fireblight			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	0.5 – 1.0 (0.25 - 0.5 lbs Cu/A)	5	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 0.5 lbs of product (0.25 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 12.0 lbs product/Acre (6.0 lbs. metallic copper equivalent) Maximum single growing season application rate is 1.0 lb/A (0.5 lbs. metallic copper equivalent) Maximum annual application rate is 32.0 lbs product/Acre (16.0 lbs. metallic copper equivalent)			

ALMONDS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Blast (Pseudomonas) Bacterial Canker Shot-Hole	4 – 16 (2.0 – 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.
Bacterial Blast (bloom/growing season)	1 – 3 (0.5 – 1.5 lbs Cu/A)	5	For bacterial blast control in sprinkler irrigated orchards or where disease is severe, apply 1 .5 to 3 pounds 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 16 lbs/A (8 lbs. metallic copper equivalent) Maximum single bloom/growing application rate is 3 lbs/A (1.5 lbs. metallic copper equivalent) Maximum annual application rate is 36 lbs/A (18 lbs metallic copper equivalent)			

APRICOTS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Dormant Season: Coryneum blight (Shot hole)	4 – 16 (2.0 – 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	1 – 3 (0.5 – 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 16 lbs/A (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 3 lbs/A (1.5 lbs metallic copper equivalent) Maximum annual application rate is 36 lbs/A (18.0 lbs metallic copper equivalent)			

ATEMOYA, SUGAR APPLE (Annona) (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose	3 – 6 (1.5 – 3.0 lbs Cu/A)	7	Make initial application just before flowering and repeat on a weekly schedule.
RESTRICTIONS Maximum single dormant application rate is 6 lbs/A (3 lbs. metallic copper equivalent) Maximum annual application rate is 25 lbs/A (12.5 lbs metallic copper equivalent)			

AVOCADOS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose Blotch Scab	3 – 6 (1.5 – 3.0 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 6 lbs/A (3 lbs metallic copper equivalent)
 Maximum annual application rate is 37.8 lbs/A (18.9 lbs metallic copper equivalent)

BANANA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Sigatoka	1 – 2 (0.5 – 1.0 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			Mix in 100 gallons of water 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 lbs/A (1.0 lb. metallic copper equivalent)
 Maximum annual application rate is 37 lbs/A (18.5 lbs metallic copper equivalent)

BEANS (Dry, Green)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Blight (Halo & Common) Brown Spot Common Blight Downy Mildew	0.5 – 1.5 (0.25 – 0.75 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. Use the higher rates when conditions favor disease development.

RESTRICTIONS

Maximum single application rate is 1.5 lbs/A (0.75 lbs. metallic copper equivalent)
 Maximum annual application rate is 9 lbs/A (4.5 lbs metallic copper equivalent)

BLUEBERRIES (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Canker	1 – 4 (0.5 – 2.0 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 4 lbs/A (2 lbs. metallic copper equivalent)
 Maximum annual application rate is 16 lbs/A (8 lbs metallic copper equivalent)

BRAMBLES (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chehalems, Thornless Evergreens, Blackberry & Raspberry)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthrachnose Cane Spot Leaf Spot Pseudomonas Blight Purple Blotch Yellow Rust	1 – 4 (0.5 – 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	1 – 3 (0.5 – 1.5 lbs Cu/A)		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.
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RESTRICTIONS

Maximum single application rate is 4 lbs/A (2.0 lbs metallic copper equivalent)
Maximum annual application rate is 20 lbs/A (10.0 lbs metallic copper equivalent)

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, COLLARD GREENS, MUSTARD GREENS, & TURNIP GREENS

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Downy Mildew	0.25 – 1.0 (0.125 – 0.5 lbs Cu/A)	7	Apply in a minimum of 25 GPA at 7-10 day intervals.
Black Leaf Spot (Alternaria) Black Rot (Xanthomonas)	0.5 – 1.0 (0.25 – 0.5 lbs Cu/A)	7	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 lb/A (0.5 lbs metallic copper equivalent)
Maximum annual application rate is 5 lbs/A (2.5 lbs metallic copper equivalent)

CACAO

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Black Pod	2 – 4.5 (1.0 – 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 4.5 lbs/A (2.25 lbs. metallic copper equivalent)
Maximum annual application rate is 31.5 lbs/A (15.75 lbs metallic copper equivalent)

CARAMBOLA

(Do not use in California unless accompanied by DPR approved supplemental label)

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose	1 – 4 (0.5 – 2.0 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 4 lbs/A (2 lbs. metallic copper equivalent)
Maximum annual application rate is 21 lbs/A (10.5 lbs metallic copper equivalent)

CARROTS			
DISEASE	APPLICATION RATE (lbs Product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Carrot Blight (Cercospora)	1.0 - 2.0 (0.50 - 1.0 lbs Cu/A)	7	When disease threatens, apply at 7 - 10 day intervals.
RESTRICTIONS Maximum single application rate is 2.0 lbs Product/Acre (1.0 lbs metallic copper equivalent) Maximum annual application rate is 10.0 lbs Product/Acre (5.0 lbs metallic copper equivalent)			

CELERY & CELERIAC (Do not use on Celeriac in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Blight Cercospora Early Blight Septoria Late Blight	0.5 – 2 (0.25 – 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 2 lbs/A (1.0 lbs metallic copper equivalent) Maximum annual application rate is 10.5 lbs/A (5.25 lbs metallic copper equivalent)			

CHERRY			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Dormant & Late Bloom Season: Dead Bud (Pseudomonas syringae) Coryneum Blight	4 – 16 (2.0 – 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	1 – 3 (0.5 – 1.5 lbs Cu/A)	5	Apply at popcorn and full bloom.
RESTRICTIONS Maximum single dormant season application rate is 16 lbs/A (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 3 lbs/A (1.5 lbs metallic copper equivalent) Maximum annual application rate is 36 lbs/A (18.0 lbs metallic copper equivalent)			

CHIVES (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Downy Mildew	0.5 – 1 (0.25 – 0.5 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 lb/A (0.5 lbs. metallic copper equivalent) Maximum annual application rate is 5 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	COMMENTS
Melanose Scab Pink Pitting Greasy Spot Brown Rot Alternaria Septoria Spot	1 – 6* (0.5 – 3.0 lbs Cu/A) *(In California use a minimum of 2 lbs/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)	3 – 6 (1.5 – 3.0 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 6 lbs/A (3.0 lbs metallic copper equivalent) Maximum annual application rate is 25 lbs/A (12.5 lbs metallic copper equivalent)			

COFFEE			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Coffee Berry Disease	1 – 4 (0.5 – 2.0 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)	1 – 2 (0.5 – 1.5 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 (0.5 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.
RESTRICTIONS Maximum single dormant application rate is 4 lbs/A (2 lbs. metallic copper equivalent) Maximum annual application rate is 25 lbs/A (12.5 lbs metallic copper equivalent)			
NOTE: Use higher rates or shorter intervals when rainfall is heavy and disease pressure is high.			

CRANBERRIES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Canker	2 – 4 (1.0 – 2.0 lbs Cu/A)	7	Make first application in late bloom. One or two additional applications at 10-14 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 10-14 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 10-14 day intervals or as needed through pre-bloom.
RESTRICTIONS Maximum single dormant application rate is 4 lbs/A (2 lbs. metallic copper equivalent) Maximum annual application rate is 12.5 lbs/A (6.25 lbs metallic copper equivalent)			

CUCURBITS (Cucumbers, Cantaloupes, Honeydews, Muskmelons, Pumpkins, Squash & Watermelons)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Alternaria Leaf Spot Angular Leaf Spot Anthracnose Downy Mildew Powdery Mildew Gummy Stem Blight Watermelon Bacterial Fruit Blotch (suppression)	0.5 – 2 (0.25– 1.0 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 lbs/A (1.0 lbs metallic copper equivalent) Maximum annual application rate is 10.5 lbs/A (5.25 lbs metallic copper equivalent)			

DILL (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Phoma Leaf Spot	0.5 – 1.5 (0.25 – 0.75 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/A (0.75 lbs. metallic copper equivalent) Maximum annual application rate is 7.5 lbs/A (3.75 lbs metallic copper equivalent)			

CURRANTS & GOOSEBERRY

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose Leaf Spot	2.5 – 5 (1.25 – 2.5 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 5 lbs/A (2.5 lbs metallic copper equivalent) Maximum annual application rate is 20 lbs/A (10 lbs metallic copper equivalent)			

DOUGLAS FIR

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Rhabdocine Needlecast	2 – 4 (1.0 – 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 4 lbs/A (2 lbs. metallic copper equivalent) Maximum annual application rate is 40 lbs/A (20 lbs metallic copper equivalent)			

EGGPLANT

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Alternaria Blight Anthracnose Phomopsis	0.5 – 1.5 (0.25 – 0.75 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/A (0.75 lbs metallic copper equivalent) Maximum annual application rate is 15 lbs/A (7.5 lbs metallic copper equivalent)			

ENDIVE, ESCAROLE, LETTUCE

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Downy Mildew	0.25 – 2 (0.125 – 1.0 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 2 lbs/A (1.0 lbs metallic copper equivalent) Maximum annual application rate is 16 lbs/A (8.0 lbs metallic copper equivalent)			

FILBERTS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Blight (Post Harvest application)	4 – 12 (2.0 – 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 12 lbs/A (6.0 lbs metallic copper equivalent) Maximum annual application rate is 48 lbs/A (24.0 lbs metallic copper equivalent) Permitted only in Washington state and Oregon.			

GINSENG			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Alternaria Leaf Blight Stem Slight	0.5 – 2 (0.25 – 1.0 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 lbs/A (1 lb. 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	COMMENTS
Black Rot Downy Mildew Phomopsis Powdery Mildew	0.5 – 6* (0.25 – 3.0 lbs Cu/A) *(In California use a minimum of 1 lbs/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 6 lbs/A (3.0 lbs metallic copper equivalent)

Maximum annual application rate is 40 lbs/A (20.0 lbs metallic copper equivalent)

GUAVA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose Red Algae	1 – 2.4 (0.5 – 1.2 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 2.4 lbs/A (1.2 lbs. metallic copper equivalent)

Maximum annual application rate is 9.6 lbs/A (4.9 lbs metallic copper equivalent)

HOPS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Downy Mildew	0.5 – 1 (0.25 – 0.5 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 lbs/A (0.5 lbs. metallic copper equivalent)

Maximum annual application rate is 5 lbs/A (2.5 lbs metallic copper equivalent)

KIWIS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Erwinia herbicola Pseudomonas fluorescens Pseudomonas syringae	1 – 4 (0.5 – 2.0 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 4 lbs/A (2 lbs. metallic copper equivalent)

Maximum annual application rate is 12 lbs/A (6 lbs metallic copper equivalent)

LIVE OAK			
DISEASE	APPLICATION RATE	RETREATMENT INTERVAL	COMMENTS
Ball moss Spanish moss	Mix 1 ½ – 4 lbs of product per 100 gallons of water.	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 50 HB 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 4 lbs/A (2.0 lbs metallic copper equivalent)

Maximum annual application rate is 40 lbs/A (20.0 lbs metallic copper equivalent)

MACADAMIA			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose	2 – 4.5 (1.0 – 2.25 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 – 3 (0.5 – 1.5 lbs Cu/A)		

RESTRICTIONS

Maximum single dormant application rate is 4.5 lbs/A (2.25 lbs. metallic copper equivalent)

Maximum annual application rate is 18 lbs/A (9 lbs metallic copper equivalent)

MAMEY SAPOTE (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Algal Leaf Spot Anthracnose	2 – 4 (1.0 – 2.0 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 4 lbs/A (2 lbs. metallic copper equivalent)

Maximum annual application rate is 16 lbs/A (8 lbs metallic copper equivalent)

MANGO (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose	2 – 5 (1.0 – 2.5 lbs Cu/A)	30	Apply monthly after fruit set until harvest. Consult Extension Service for local recommendations.
RESTRICTIONS Maximum single application rate is 5 lbs/A (2.5 lbs metallic copper equivalent) Maximum annual application rate is 35 lbs/A (17.5 lbs metallic copper equivalent)			

OLIVES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Peacock Spot Olive Knot	2 - 6* (1.0– 3.0 lbs Cu/A) *(In California use a minimum of 4 lbs/A)	30	Apply post harvest before winter rains fall. A second application in early spring should be made if disease is severe. Apply the higher rate for heavy disease pressure or when conditions favor disease development.
RESTRICTIONS Maximum single application rate is 6 lbs/A (3 lbs metallic copper equivalent) Maximum annual application rate is 12 lbs/A (6 lbs metallic copper equivalent)			

ONION & GARLIC			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Purple Blotch Downy Mildew	0.5 – 2 (0.25 – 1.0 lbs Cu/A)	7	Begin when plants are 4 to 6 inches high and repeat at 7-10 day intervals or as needed depending upon disease pressure. NOTE: Can cause phytotoxicity to leaves.
RESTRICTIONS Maximum single application rate is 2 lbs/A (1.0 lbs metallic copper equivalent) Maximum annual application rate is 12 lbs/A (6.0 lbs metallic copper equivalent)			

PAPAYA (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose	0.75 – 5 (0.375 – 2.5 lbs Cu/A)	14	Begin application before disease is expected to appear. Repeat at 7 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 5 lbs/A (2.5 lbs metallic copper equivalent)
 Maximum annual application rate is 42 lbs/A (21 lbs metallic copper equivalent)

PARSLEY

(Do not use in California unless accompanied by DPR approved supplemental label)

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Blight (Pseudomonas sp.)	1 – 2 (0.5 – 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 2 lbs/A (1 lb. metallic copper equivalent)
 Maximum annual application rate is 4 lbs/A (2 lbs metallic copper equivalent)

PASSION FRUIT

(Do not use in California unless accompanied by DPR approved supplemental label)

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthraco nose	2 – 4.5 (1.0 – 2.25 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 4.5 lbs/A (2.25 lbs. metallic copper equivalent)
 Maximum annual application rate is 18 lbs/A (9 lbs metallic copper equivalent)

PEACHES & NECTARINES

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Dormant Season: Bacterial Blast (Pseudomonionas) Bacterial Canker Bacterial Spot (Xanthomonas) Leaf Curl Shot-Hole	4 – 16 (2.0 – 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)	1 – 3 (0.5 – 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 to avoid possible fruit discoloration

RESTRICTIONS

Maximum single dormant application rate is 16 lbs/A (8.0 lbs metallic copper equivalent)
 Maximum single growing application rate is 3 lbs/A (1.5 lbs metallic copper equivalent)
 Maximum annual application rate is 36 lbs/A (18.0 metallic copper equivalent)

PEANUTS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Cercospora Leaf Spot	0.5 – 1.5 (0.25 – .75 lbs Cu/A)	7	Begin spraying 35-40 days after planting or when disease symptoms appear. Use sufficient water to get adequate coverage. Continue applications at 10-14 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/A (0.75 lbs metallic copper equivalent) Maximum annual application rate is 9 lbs/A (4.5 metallic copper equivalent)			

PEARS & QUINCE (Do not use on Quince in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bloom & Growing Season: Fireblight	0.5 – 1 (0.25 – 0.5 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	6 – 12 (3.0 – 6.0 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 12 lbs/A (6.0 lbs metallic copper equivalent) Maximum single growing season application rate is 1 lb/A (0.5 lbs metallic copper equivalent) Maximum annual application rate is 32 lbs/A (16 lbs metallic copper equivalent)			

PEAS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Powdery Mildew	0.75 – 1.5 (0.325 – .75 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/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	COMMENTS
Shuck and Kernel rot (Phytophthora cactorum) Zonate leaf spot (Cristulariella pyramidalis)	1 – 4 (1.0 – 2.0 lbs Cu/A)	14	Apply in sufficient water for good coverage at 2-4 week 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 COMMENTS	Make only one application per year	Mix 3 lbs of product 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. Do not exceed a 4.0 lb of product per acre rate.
RESTRICTIONS Maximum single application rate is 4 lbs/A (2.0 lbs metallic copper equivalent) Maximum annual application rate is 12 lbs/A (6.0 lbs metallic copper equivalent)			

PEPPERS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Spot	0.5 – 1.5 (0.25 – 0.75 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 higher rates when conditions are favorable for disease development.
RESTRICTIONS Maximum single application rate is 1.5 lbs/A (0.75 lbs metallic copper equivalent) Maximum annual application rate is 22.5 lbs/A (11.25 lbs metallic copper equivalent)			

PISTACHIOS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Botrycsphaeria Panicle Blight Botrytis Blight Late Blight (Alternaria alternata) Septoria Leaf Blight Shoot Blight	1 – 4 (0.5 – 2.0 lbs Cu/A)	14	Make initial application at bud swell and repeat on a 14 to 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 lbs/A (2 lbs. metallic copper equivalent) Maximum annual application rate is 16 lbs/A (8 lbs metallic copper equivalent)			

PLUMS & PRUNES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Dormant Season: Coryneum blight (Shot hole)	4 – 16 (2.0 – 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	1 – 3 (0.5 – 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 16 lbs/A (8.0 lbs metallic copper equivalent) Maximum single growing season application rate is 3 lbs/A (1.5 lbs metallic copper equivalent) Maximum annual application rate is 36 lbs/A (18.0 lbs metallic copper equivalent)			

POTATOES			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Early & Late Blight	1 – 5 (0.5 – 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 5 lbs/A (2.5 lbs metallic copper equivalent) Maximum annual application rate is 50 lbs/A (25 lbs metallic copper equivalent)			

SOYBEANS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Bacterial Blight (<i>Pseudomonas syringae</i>) Bacterial Pustule (<i>Xanthomonas campestris</i>)	0.75 – 1.5 (0.325 – 0.75 lbs Cu/A)	7	Begin applications from first node through third node development on the main stem with fully developed leaves beginning with true unifoliolate 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 (<i>Septoria glycines</i>)			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 (<i>Diaporthe phaseolorum</i> and <i>Phomopsis longicola</i>)			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 (<i>Microsphaera manshurica</i>)			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 (<i>Peronospora</i>)			Begin applications when conditions favor disease development (high humidity and cool temperatures).

SOYBEANS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
manchurica)			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/A (0.75 lbs. metallic copper equivalent)			
Maximum annual application rate is 9 lbs/A (4.5 lbs metallic copper equivalent)			

SPINACH			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthracnose Blue Mold Cercospora Leafspot Downy Mildew White Rust	0.5 – 1.5 (0.25 – 0.75 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 higher rates when conditions favor disease development. 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	COMMENTS
Downy Mildew Leaf Spot Leaf Blight	1 – 3* (0.5 – 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. Use 1 lb. metallic copper equivalent or less when disease is not severe. NOTE: Discontinue applications if signs of phytotoxicity appear.
RESTRICTIONS			
Maximum single application rate is 3 lbs/A (1.5 lbs metallic copper equivalent)			
Maximum annual application rate is 12 lbs/A (6.0 lbs metallic copper equivalent)			
*Use higher rates only when disease pressure is severe.			

SYCAMORE			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Anthraco nose	2 – 4 (1.0 – 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 4 lbs/A (2 lbs. metallic copper equivalent) Maximum annual application rate is 40 lbs/A (20 lbs metallic copper equivalent)			

SUGAR BEETS, TABLE BEETS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Cercospora Leaf Spot	1 – 2.5 (0.5 – 1.25 lbs Cu/A)	10	Begin applications when conditions first favor disease development and repeat at 10-14 day intervals or as needed. Use the higher rate when disease is severe.
RESTRICTIONS Maximum single dormant application rate is 2.5 lbs/A (1.25 lbs. metallic copper equivalent) Maximum annual application rate is 15 lbs/A (7.5 lbs metallic copper equivalent)			

TOMATOES (Processed)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Early Blight	0.5 – 1 (0.25 – 0.5 lbs Cu/A)	3	Apply before fall rains. Use on yellow varieties may cause fruit discoloration. To avoid discoloration, pick before spraying foliage.
Bacterial Speck	0.5 – 1 (0.25 – 0.5 lbs Cu/A)	3	Apply at 10-30 day intervals beginning when the disease threatens. Use more frequent applications when disease pressure is high.
Bacterial Spot Anthraco nose Gray Leaf Mold Gray Leaf Spot Septoria Leaf Spot Late Blight	0.5 – 1 (0.25 – 0.5 lbs Cu/A)	3	When disease threatens, apply at 3-10 day intervals. Use higher rate when disease is severe.
RESTRICTIONS Maximum single application rate is 1 lb/A (0.5 lbs metallic copper equivalent) Maximum annual application rate is 34 lbs/A (17.0 lbs metallic copper equivalent)			

TOMATOES (Fresh Market)			
DISEASE	APPLICATION RATE (lbs product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENT
Early Blight	1.0 - 3.0 (0.5 - 1.5 lbs Cu/A)	3	Apply before fall rains. Use on yellow varieties may cause fruit discoloration. To avoid discoloration, pick before spraying foliage.
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 (1.5 lbs metallic copper equivalent) Maximum annual application rate is 16.0 lbs product/Acre (8.0 lbs metallic copper equivalent)			

WALNUTS			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Walnut Blight	2 – 6 (1.0 – 3.0 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 or 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 6 lbs/A (3 lbs metallic copper equivalent) Maximum annual application rate is 50 lbs/A (25.0 lbs metallic copper equivalent)			

WATERCRESS (Do not use in California unless accompanied by DPR approved supplemental label)			
DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Cercospora Leaf Spot	0.5 – 1 (0.25 – 0.5 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 1lb/A (0.5 lbs. metallic copper equivalent)
Maximum annual application rate is 4 lbs/A (2 lbs metallic copper equivalent)
Production fields must be drained of water at least 24 hours prior to each application and water must not be reapplied to the field for a minimum of 24 hours following each application.
Copper must not be applied to watercress during the aquatic production phase.

WHEAT, OATS, BARLEY

DISEASE	APPLICATION RATE (lbs of product/Acre)	MINIMUM DAYS RETREATMENT INTERVAL	COMMENTS
Helminth osporium Blotch Helminthosporium Spot Ssptoria Leaf Blotch	0.5 – 1 (0.25 – 0.5 lbs Cu/A)	10	Make first application at early heading and follow with second spray 10 days later. Use the higher rates when conditions favor disease development.

RESTRICTIONS

Maximum single dormant application rate is 1 lb/A (0.5 lbs. metallic copper equivalent)
Maximum annual application rate is 2 lbs/A (1 lb metallic copper equivalent)

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 HANDLING: 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.

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.

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, LLC (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.

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LABEL HISTORY
(Not included in final printed label)

File Name	Version Mark	Comment
042750-168.20220124.DRAFT	012422	(e) Label Revisions