

19713-301

5/14/2010

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Ms Luz G Chan
Drexel Chemical Company
PO BOX 13327
Memphis, TN 38113-0327

MAY 14 2010

Subject: Label Notification(s) for Pesticide Registration Notice 2007-4

Dear Registrant:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 dated May 4, 2010 for:

EPA Registration 19713-301 Drexel Kop-Hydroxide

The Registration Division (RD) has conducted a review of this request for applicability under PRN 2007-4 and finds that the label change(s) requested falls within the scope of PRN-2007-4. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please contact me directly at 703-305-6249 or Banza Djapao of my staff at 703-305-7269.

Sincerely,

A handwritten signature in black ink, appearing to be "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

2013



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 19713-301	2. EPA Product Manager Tony Kish	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DREXEL KOP HYDROXIDE	PM# 22/Fungicide Branch	
5. Name and Address of Applicant (Include ZIP Code) Drexel Chemical Company P.O. Box 13327 Memphis, TN 38113-0327 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated _____	NOTIFICATION MAY 14 2010
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of revised label per PR Notice 2007-4.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container	<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container less than 5 gallons; more than 5 gallons		5. Location of Label Directions <input checked="" type="checkbox"/> On the label	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled				<input type="checkbox"/> Other _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name LUZ G CHAN		Title REGISTRATION MANAGER	
		Telephone No. (Include Area Code) (639) 774-4370	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature <i>Luza Chan</i> 2010.05.04 11:23:36 -05'00'		3. Title REGISTRATION MANAGER	
4. Typed Name LUZ G CHAN		5. Date May 4, 2010	



Drexel Chemical Company

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May 4, 2010

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Rm S-4900, One Potomac Yard
2777 S Crystal Drive
Arlington, VA 22202

**Re: Submission of Revised Label per PR Notice 2007-4
DREXEL KOP-HYDROXIDE (EPA Reg. No. 19713-301)**

Herewith:

1. Completed EPA Form 8570-1
2. Two copies (marked and unmarked) of the label (301SP-0410*) with revised container disposal statements.

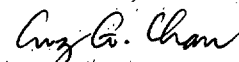
I highlighted the changes for easy reference.

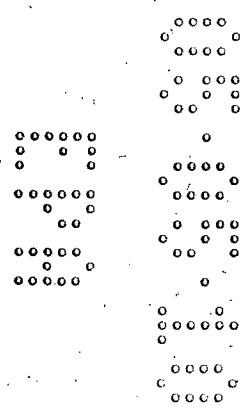
3. Certification statement

If you have questions/clarification regarding this submission, I can be reached at (901) 774-4370 or e-mail Lchan@drexchem.com.

Thank you.

Respectfully yours,
FOR DREXEL CHEMICAL COMPANY


Luz G Chan
Registration Manager



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NOTIFICATION

MAY 14 2010

KOP-Hydroxide™

A Flowable Fungicide

ACTIVE INGREDIENT:

Cupric hydroxide* 37.5%

OTHER INGREDIENTS: 62.5%

TOTAL: 100.0%

*Metallic copper equivalent is 24.4%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See **FIRST AID** Below
SHAKE WELL BEFORE USING

EPA Reg. No. 19713-301

EPA Est. No. 19713-XX-XXX Net Content: _____

FIRST AID
<p>IF SWALLOWED:</p> <ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious or convulsing person.
<p>IF IN EYES:</p> <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
<p>IF ON SKIN OR CLOTHING:</p> <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes.
<p>IF INHALED:</p> <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.
<p>Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product, including health concerns, medical emergencies or pesticide incidents, call the National Pesticide Information Center at 1-800-858-7378.</p>
<p>Note to Physician: Probable mucosal damage may contraindicate use of gastric lavage.</p>

PRECAUTIONARY STATEMENTS (Cont.)
 Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS
Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing 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 product is toxic to fish and aquatic organisms. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean highwater mark. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

GENERAL CHEMIGATION INSTRUCTIONS
 Do not apply this product through any irrigation system using aluminum parts or components as damage to the system may occur. Such application is prohibited regardless of whether the irrigation system is flushed with water after use of this product. Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move irrigation system(s) which contain no aluminum parts or components. Do not apply this product through any other type of irrigation system. Crop injury, or lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals
CAUTION: Harmful if absorbed through the skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause skin sensitization in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
 Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance selection chart.

Applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes plus socks, protective eyewear and dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any R, P or HE filter.

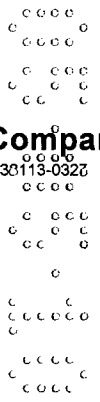
(Continued)



Manufactured By:
Drexel Chemical Company

P.O. BOX 13327, MEMPHIS, TN 38113-0327

SINCE 1972



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A. Center Pivot, Traveler, Big Gun, Motor Lateral Move, End Tow, and Side (Wheel) Roll Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank or injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until the product has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

B. Solid Set and Hand Move Irrigation Equipment: Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of product for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that the product will remain in suspension during the injection cycle. This product can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until pesticide is cleared from last sprinkler head.

SAFETY DEVICES

1) The systems designated above must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. 2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. 3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. 5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water systems means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or, in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

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

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 regulations.

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, 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), restricted entry interval (REI) and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. (Continued)

AGRICULTURAL REQUIREMENTS (Con't)

Do not enter or allow worker entry into treated areas during the restricted entry interval of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes plus socks and protective eyewear.

The following equipment and precautions must be followed for 7 days following the application of this product.

An eye-flush container, designed specifically for flushing eyes, must be available at the WPS decontamination site for workers entering the area treated with copper hydroxide.

Notify workers of the application by warning them orally that residues in the treated areas may be highly irritating to their eyes and to take precautions such as refraining from rubbing their eyes and if they get residues in their eyes they should immediately flush their eyes using a eye-flush container.

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 treated areas without protective clothing until sprays have dried.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1. The distance of the outermost nozzles on the boom must not exceed three-fourths the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information** that follows.

Aerial Drift Reduction Advisory Information

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity, and Temperature Inversions**).

Controlling Droplet Size

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

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Wind

Drift potential is lowest between speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by observing 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.

Sensitive Areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

USE SITES

Use this product as noted below. This product is adaptable to spraying from all types of spray equipment. Depending on the equipment used and the specific crop, 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 gallons per acre for fruit and nut crops and up to 1,500 gallons per acre as may be required for large citrus groves. For concentrate ground sprays, apply from 5 to 20 gallons per acre for vegetable crops and 25 to 100 gallons per acre for fruit and nut crops. For aerial spraying, 3 to 15 gallons per acre are commonly used. No additional surfactants are needed. Add this product slowly to a spray tank partially filled with water. Spreader-stickers, insecticides, nutrients, etc. should be added last. This product is compatible with commercially formulated spreader-stickers, oils and such insecticides as Carbaryl and other fungicides. Observe all use precautions and limitations on label of all products used in mixtures.

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.

FROST INJURY PROTECTION

Bacterial Ice nucleation inhibitor - Application of this product made to all crops listed on this label at rates and stages of growth indicated on this label at least 24 hours and not more than 72 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola*, and *Pseudomonas fluorescens*) and may therefore provide some protection against light frost. The degree of frost protection will vary with weather conditions and other factors. Not recommended for those geographical areas where weather conditions favor severe frost.

Crops	Disease Controlled	Rate per Acre
Alfalfa	<i>Cercospora</i> and <i>Leptosphaerulina</i> leaf spots	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply 10 to 14 days before each harvest or earlier if disease threatens. Apply with ground or aerial equipment. Spray injury may occur with sensitive varieties such as Lahontan.	
Almonds	Coryneum blight (Shot hole), Blossom brown rot	1.3 to 8 pts.
	SPECIFIC DIRECTIONS: Apply during the early bloom stage (popcorn). A second application in late dormant before foliage buds swell may be necessary if frequent rainfall occurs. A second application should be made during the early bloom stage (popcorn). To avoid plant injury, do not use above rate after full bloom.	

(Continued)

Crops	Disease Controlled	Rate per Acre
Almonds (Cont)	Bacterial blast (<i>Pseudomonas</i>)	1.3 to 8 pts.
	SPECIFIC DIRECTIONS: Apply at dormant to early pink bud. For control in sprinkler irrigated orchards or where disease is severe, apply 2 to 4 sprays of this product or as many as required at two-thirds to 2 pints per acre 100 gallons at 2-week post bloom intervals or just before sprinkling. Slight leaf injury may occur from post-bloom spray.	
Apples	Anthraxnose, Blossom blast, European canker, <i>Pseudomonas syringae</i>	8 to 10.4 pts.
	SPECIFIC DIRECTIONS: Apply before Fall rains. Use on yellow varieties may cause discoloration. To avoid, pick before spraying.	
	Apple scab (Except CA), Fireblight	5.6 to 10.4 pts.
	SPECIFIC DIRECTIONS: Apply as a full cover spray. Make application between silver-tip and green-tip. Note: Phytotoxicity may occur from late application. (Discontinue use when green-tip is one-half inch.) Extended spray schedule where fruit finish is not a concern: Continued applications at 1.3 to 2.7 pints to control Apple scab and 0.7 to 1.3 to control Fireblight may be made at 5 to 7 day intervals or as needed between one-half inch green-tip and first cover spray. Moderate to severe crop injury may result from this extended spray schedule. It is not intended for fresh marked apples or for apples where fruit finish is a concern as it is likely to cause fruit russetting. The addition of 1 to 3 pounds of hydrated lime per 1.3 pints of this product may reduce crop injury.	
Apricots	Crown or Collar rot (<i>Phytophthora cactorum</i>)	2.6 to 5.5 pts.
	SPECIFIC DIRECTIONS: Mix recommended rate in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early Spring or in Fall after harvest each year. Do not use if soil pH is below 5.5 or copper toxicity may result.	
Apricots	Blossom brown rot, Coryneum blight (Shot hole)	1.3 to 4 pts.
	SPECIFIC DIRECTIONS: Apply at popcorn to full bloom as a full cover spray. To avoid spray injury, do not apply after bloom.	
Atemoya	Anthraxnose	4 pts.
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Avocados	Anthraxnose, Blotch, Scab	5.6 to 8 pts.
	SPECIFIC DIRECTIONS: Apply when bloom buds begin to swell depending on equipment. Continue application at monthly intervals for 5 to 6 applications. Follow recommendations of State Agricultural Experiment Stations.	
Bananas	Sigatoka (Black and Yellow)	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply by air in 3 gallons of water containing one-half gallon of agricultural oil. Apply on a 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.	
	Black pitting	2.7 to 5.3 pts.
Beans	SPECIFIC DIRECTIONS: Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after emergence.	
	Bacterial blight (Half and Common), Brown spot	0.7 to 4 pts.
Blackberries (Auroras, Boysens, Cascades, Chehalems, Logans, Marions, Santiams, Thomless evergreens)	SPECIFIC DIRECTIONS: For protective sprays apply first application when plants are six inches high. Apply on 7 to 14 day schedule depending on local conditions. Use 0.7 to 4 pints per acre, depending on disease severity.	
	Anthraxnose, Leaf and Cane spot, <i>Pseudomonas</i> blight, Purple blotch, Yellow rust	2.7 to 5.3 pts.
(Continued)	SPECIFIC DIRECTIONS: Apply delayed dormant spray after training in Spring at 2.7 to 5.3 pints plus 1 quart of superior-type oil per 100 gallons. Apply again in late Spring at 2.7 pints plus 1 quart of superior-type oil per 100 gallons. Make Fall spray application after harvest using 5.3 pints plus 1 quart of superior-type oil per 100 gallons.	

Crops	Disease Controlled	Rate per Acre
(Cont) Blackberries (Auroras, Boysens, Cascades, Chehalems, Logans, Marions, Santiams, Thomless evergreens)	Anthraxnose, Cane spot, Leaf spot, Purple blotch, Yellow rust	1.3 pts.
	SPECIFIC DIRECTIONS: Apply when leaf buds begin to open and repeat when flower buds show white. If needed agricultural-type spray oil may be added. Note: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.	
Blueberries	Bacterial canker	2.7 to 5.3 pts.
	SPECIFIC DIRECTIONS: Make first application before the Fall rains, preferably the first week in October and a second application four weeks later.	
	Fruit rot, Phomopsis, Twig blight	4 pts.
	SPECIFIC DIRECTIONS: Dormant application: Begin applications when bloom buds begin to swell. Make additional applications at 10 to 14 day intervals or as needed before blooms open.	
Broccoli, Brussels sprouts, Cabbage, Cauliflower, Collards, Mustard greens, Turnip greens	Downy mildew	0.7 to 1.3 pts.
	SPECIFIC DIRECTIONS: Apply 0.7 to 1.3 pints in a minimum of 25 gallons per acre at 7 days intervals.	
	Cabbage only: Black leaf spot (<i>Alternaria</i>), Black rot (<i>Xanthomonas</i>)	2.7 pts.
	SPECIFIC DIRECTIONS: Apply in a minimum of 25 gallons per acre at 7 to 10 day intervals.	
Note: A slight reddening of older leaves may occur on Broccoli and a slight flecking of wrapper leaves may occur on Cabbage at the 2.7 pints rate. For control of disease of these crops, begin application after transplants are set in the field or shortly after emergence of field-seeded crops or when conditions favor disease development.		
Cacao	Black pod	1.3 to 11.3 pts.
	SPECIFIC DIRECTIONS: Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates from 1.3 to 6 pints per acre, depending on disease severity. For drier areas, where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 4.3 to 11.3 pints per acre, according to disease incidence and planting density.	
Carambola	Anthraxnose	8 pts.
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Carrots	<i>Alternaria</i> leaf spot, Carrot blight (<i>Cercospora</i>)	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: When disease threatens, apply 1.3 to 2.7 pints per acre at 7 to 14 day intervals depending on disease severity.	
Celery, Celeriac	Early blight, Late blight, Bacterial blight	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply as soon as plants are first established in the field at 1.3 to 2.7 pints per acre, then every 5 to 7 days depending on severity and weather. One to 2 quarts of a suitable agricultural spray oil per acre may be used as a spreader-sticker.	
Cherry	Cornyeum blight (Shot hole), Dead bud (<i>Pseudomonas syringae</i>)	5.6 to 8 pts.
	SPECIFIC DIRECTIONS: Apply in the Fall (before heavy Fall rains) and again in January. In orchards where the disease is severe, a spray should also be applied shortly after harvest.	
	Brown rot blossom blight	2.7 to 4 pts.
	SPECIFIC DIRECTIONS: For adequate control apply in 100 gallons as a full cover spray at popcorn and full bloom.	
	Cherry leaf spot (Sour Cherries Only)	4 to 5.3 pts.
	SPECIFIC DIRECTIONS: Apply at petal fall as well as one to two times after petal fall. Use the lower rates where disease infection is light and use the higher rates for a dormant application or where disease infection is moderate to heavy. Do not apply to sweet cherries or the English Morello variety as severe injury will result. The addition of 1 to 3 pounds of hydrated lime per 1.3 pints of this product may reduce crop injury. Note: Moderate to severe injury such as leaf spotting and defoliation may occur from post-bloom applications.	

Crops	Disease Controlled	Rate per Acre
Chives	Downy mildew	2.7 pts.
	SPECIFIC DIRECTIONS: Begin applications when plants are established in the field. Repeat applications every 7-10 days as dictated by disease conditions.	
Citrus	Greasy spot, Melanose, Pink pitting, Scab	2.4 to 8 pts.
	SPECIFIC DIRECTIONS: Apply as pre-bloom and post-bloom sprays. Use 2.4 to 8 pints of this product per 100 gallons acre, depending on disease severity. For Greasy spot - Apply 0.75 to 4 pints per acre using higher rates when conditions favor disease. May be used in concentrate sprays at equivalent rates. For aerial application, use 8 pints of this product per 10 gallons per acre. Note: In CA, in areas subject to copper injury, add 0.3 to 1 pound of high quality lime per 1.3 pints of this product.	
	Phytophthora Brown rot, Septoria spot	2.7 to 5.3 pts.
	SPECIFIC DIRECTIONS: - Use 2.7 to 5.3 pints per acre beginning in Fall or just after the first rain and continuing as needed. For control of Brown rot spray the skirts of trees to a height of at least 4 feet. For control of Septoria spot or where fruits have already been infected with Brown rot, spray the entire tree. Also spray bare ground to one foot beyond skirt. Use higher rates when conditions favor disease. Note: In CA, in areas subject to copper injury, add 0.3 to 1 pound of high quality lime per 1.3 pints of this product.	
	<i>Alternaria</i> brown spot	2.7 to 5.3 pts.
	SPECIFIC DIRECTIONS: On susceptible varieties, apply when the first Spring flush appears and each flush thereafter. Application to fruit should start after two-thirds of the petals have fallen and be repeated on a 21 day schedule or as needed. Use the higher rates when conditions favor disease.	
	Citrus canker (SUPPRESSION ONLY)	8 pts.
	SPECIFIC DIRECTIONS: Spray flushes 7 to 14 days after shoots begin to grow. Young fruit may need additional application. Number and timing of applications will depend on disease pressure. Under heavy disease pressure, each flush of new growth should be sprayed.	
	Phytophthora Foot rot	0.7 pt.
	SPECIFIC DIRECTIONS: Mix with one quart of water, Tre-Hold®, or latex paint and paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May before Summer rains and/or in the Fall before wrapping trees for freeze protection. This treatment serves as protection for up to one year, but does not cure existing infections. Note: Areas where microjet or low volume irrigation hit the tree trunk may require retreatment due to wash off.	
Note: Phytotoxicity may occur on young tender flush when this product is applied to Citrus seedlings grown in greenhouses or shadehouses. Adding foliar nutritional or other products to spray mixtures containing this product and applying to Citrus during the post-bloom period when young fruit are present may result in spray burn.		
Citrus (Field nursery grown)	Melanose, Scab, Pink pitting, Greasy spot, Brown rot, (Suppression of) Citrus canker	2.7 to 5.3 pts.
	SPECIFIC DIRECTIONS: Apply this product at 28 day intervals or as needed depending on disease severity.	
Coffee	Iron spot (<i>Cercospora coffeicola</i>), Pink disease (<i>Corticium salmonicolor</i>)	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply 1.3 to 2.7 pints per acre as a concentrate or dilute spray. Begin treatment at start of wet season and continue at monthly intervals for three applications.	
	Leaf rust	1.3 to 10.7 pts.
	SPECIFIC DIRECTIONS: Apply 1.3 to 7.3 pints per acre for average density plantings. Apply 2.3 to 10.7 pints per acre for high density plantings. Apply before the onset of rain and then at 21-day intervals while rains continue. Use higher rates when rainfall is heavy and disease pressure is high.	
	Coffee berry disease (<i>Colletotrichum coffeanum</i>)	4 to 5.3 pts.
	SPECIFIC DIRECTIONS: Apply first spray at 4 to 5.3 pints per acre after flowering and before the start of long rains and then at 21 to 28 day intervals until picking. Use higher rates when rainfall is heavy and disease pressure is high.	

(Continued)

Crops	Disease Controlled	Rate per Acre
Coffee (Cont)	Bacterial Blight (<i>Pseudomonas syringae</i>)	4 to 5.3 pts.
	SPECIFIC DIRECTIONS: Apply 4 to 5.3 pints per acre. Begin spray program before the start of long rains and then at 21 to 28 day intervals until picking. The critical time of spraying to control disease is just before, during, and after flowering(s), especially when these times coincide with wet weather. Use higher rates when rainfall is heavy and disease pressure is high.	
Cranberry	Fruit rot	5.3 to 10.7 pts.
	SPECIFIC DIRECTIONS: Apply at 5.3 to 10.7 pints per acre beginning in late bloom. One or two additional applications made at 10 to 14 day intervals may be required, depending on disease pressure. Follow the advice of the State Agricultural Extension Service.	
	Rose bloom	5.3 pts.
	SPECIFIC DIRECTIONS: Apply three sprays on 10 to 14 day schedule as soon as symptoms are observed.	
	Bacterial stem canker	5.3 pts.
	SPECIFIC DIRECTIONS: Apply post-harvest and again in Spring at bud swell. Apply one or two additional applications at 10 to 14 day intervals or as needed depending on disease severity.	
	Leaf blight, Red leaf spot, Stem blight, Tip blight (<i>Monilinia</i>)	5.3 pts.
SPECIFIC DIRECTIONS: Apply delayed dormant spray in the Spring. Repeat at 10 to 14 day intervals or as needed through pre-bloom.		
Cucurbits (Cucumbers, Cantaloupes, Honeydews, Muskmelons, Pumpkins, Squash & Watermelons)	Alternaria leaf spot, Angular leaf spot, Anthracnose, Downy mildew, Powdery mildew, Gummy stem blight, Watermelon bacterial fruit blotch (suppression)	1 to 4 pts.
	SPECIFIC DIRECTIONS: Begin application when conditions are favorable for disease development. Repeat at 5 to 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.	
Currants, Gooseberry	Anthracnose, Leaf spot	6.7 to 10.7 pts.
	SPECIFIC DIRECTIONS: Make three applications of this product at 6.7 to 10.7 pints per acre starting after harvest, before bloom and after petal fall.	
Dill	Phoma leaf spot, Rhizoctonia foliage blight	2.7 to 4 pts.
	SPECIFIC DIRECTIONS: Apply 2.7 to 4 pints per acre. 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. Use higher rates when conditions favor disease.	
Douglas fir	Rhabdocone needlecast	2.7 pts.
	SPECIFIC DIRECTIONS: Begin applications at bud break and repeat at 3 to 4 week intervals. Apply in a tank mix with another registered pesticide if moderate to severe disease pressure is present.	
Eggplant	Alternaria blight, Anthracnose, Phomopsis	1.3 pts.
	SPECIFIC DIRECTIONS: Use 1.3 pints of this product per acre before disease appears. Repeat at 7 to 10 day intervals.	
Endive, Escarole	Downy mildew	0.7 to 1.3 pts.
	SPECIFIC DIRECTIONS: Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.	
Filberts	Bacterial blight	10.4 to 16 pts.
	SPECIFIC DIRECTIONS: Apply 10.4 to 16 pints per acre as a post-harvest spray. In seasons of heavy rainfall, apply another spray after the leaves have dropped. Add 1 pint of a superior-type oil per 100 gallons of water.	
	Eastern Filbert blight	10.4 to 16 pts.
	SPECIFIC DIRECTIONS: Apply in enough water to obtain thorough coverage. Make initial application at budswell to budbreak. Additional applications should be made at intervals of 10 to 14 days depending on disease severity or when conditions favor disease pressure. Add 1 pint of superior-type oil per 100 gallons of water.	

Crops	Disease Controlled	Rate per Acre
Ginseng	Alternaria leaf blight, Alternaria stem blight	1.75 pts.
	SPECIFIC DIRECTIONS: May be applied as a tank mix with 2 pounds of Iprodion 50WP in 100 gallons of water per acre. Begin tank mix applications as soon as plants have emerged in Spring. Applications should be repeated every seven days until plants become dormant in Fall. Apply fungicides at least eight hours before rain, giving the fungicides time to dry on the plants. Use of a spreader-sticker is advised. Note: Alternaria leaf and stem blight are most severe in humid conditions such as those found in the dense canopies of two, three, and four year old ginseng. Complete and thorough spray is required for control.	
Grapes	Black rot, Downy mildew, Phomopsis, Powdery mildew	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply 1.3 to 2.7 pints of this product per acre. Apply at budbreak with additional applications throughout the rainy season, depending on the disease severity. Note: Slight to severe foliage injury may occur on copper-sensitive varieties such as Concord, Delaware, Niagara and Rosette. Either test for sensitivity or add 1 to 3 pounds of hydrated lime per 1.3 pints of this product.	
Guava	Anthracnose, Red algae	4 pts.
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Hops	Downy mildew	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply as a fungicide crown treatment (after pruning, but before training) as needed. After training, additional fungicide treatments are needed at about 10 day intervals. Discontinue use 2 weeks before harvest.	
Kiwi	Blossom blight (Bud rot), Leaf spot (<i>Phomopsis</i>)	1.3 to 2 pts.
	SPECIFIC DIRECTIONS: Make two to three applications during dormant season. Do not apply at time of or after leaf emergence.	
	<i>Pseudomonas syringae</i> , <i>Erwinia herbicola</i> , <i>Pseudomonas fluorescens</i>	10.4 pts.
SPECIFIC DIRECTIONS: Apply in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of 3 applications may be made.		
Lettuce	Downy mildew	0.7 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply 0.7 to 2.7 pints of this product per acre. Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.	
Litchi	Anthracnose	4 pts.
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Live oak	Ball moss	4 to 8 pts.
	SPECIFIC DIRECTIONS: Apply in 100 gallons of water in Spring after heavy rain, using 1.5 gallons of spray per foot of tree height. Make sure to wet tufts thoroughly. A second application may be required after 12 months. Note: This product may be injurious to some ornamentals grown under live oaks.	
Macadamia nuts	Anthracnose	8 pts.
	SPECIFIC DIRECTIONS: Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
	Blossom blight, Raceme blight	4 to 8 pts.
SPECIFIC DIRECTIONS: Apply 4 to 8 pints per acre, depending on disease pressure, in 50 to 100 gallons of water during peak raceme development and bloom period.		

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Crops	Disease Controlled	Rate per Acre
Mamey sapote	Anthracnose, Algal leaf spot	8 to 10.4 pts.
	SPECIFIC DIRECTIONS: Apply when conditions favor disease development. Repeat on 14 to 30 day schedule as disease severity and environmental conditions dictate. Use higher rates when conditions favor disease.	
Mango	Anthracnose	5.3 to 13.3 pts.
	SPECIFIC DIRECTIONS: Apply monthly after fruit set until harvest at 5.3 to 13.3 pints of this product per acre depending on equipment. Consult Extension Service for State recommendations.	
Olives	Peacock spot, Olive knot	5.6 to 16 pts.
	SPECIFIC DIRECTIONS: Make first application at 5.6 to 16 pints per acre before Winter rains fall. A second application in early Spring should be made if disease is severe.	
Onion, Garlic	Downy mildew, Purple blotch	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals.	
Papaya	Anthracnose	2 to 6.7 pts.
	SPECIFIC DIRECTIONS: Apply beginning before disease is expected to appear. Repeat at 10 to 14 day intervals or at 5 to 7 day intervals during periods of heavy rainfall. 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.	
Parsley	Bacterial blight (<i>Pseudomonas sp.</i>)	4 pts.
	SPECIFIC DIRECTIONS: Begin applications when plants are first established in the field and repeat at 5 to 7 day intervals depending upon disease severity and environmental conditions.	
Passion fruit	Anthracnose	8 pts.
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Peaches, Nectarines	Bacterial blast (<i>Pseudomonas</i>), Bacterial canker, Coryneum blight (Shot hole), Leaf curl	5.6 to 21.6 pts.
	SPECIFIC DIRECTIONS: Apply 5.6 to 21.6 pints per acre after leaf fall as dormant application. Use the higher rate when rainfall is very heavy and disease pressure is high. May be used with an agricultural spray oil.	
	Blossom blight, Brown rot, Leaf curl	5.6 to 8 pts.
	SPECIFIC DIRECTIONS: Apply at 5.6 to 8 pints per acre as a full cover spray at pink bud. (Application at this time also affords some control of Coryneum blight and Leaf curl).	
	Bacterial spot	0.7 to 5.3 pts.
	SPECIFIC DIRECTIONS: Apply at 5.3 pints per acre as a dormant spray. Post-bloom, apply 0.7 pint per acre at first and second cover sprays. Do not spray later than three weeks prior to harvest. Do not use at rates above those recommended. Note: Slight defoliation and spotting of leaves may occur from use in cover sprays.	
Peanuts	Cercospora leaf spot	1 to 4 pts.
	SPECIFIC DIRECTIONS: Begin spraying 35 to 40 days after planting or when disease symptoms appear. Make ground or aerial application at 1 to 4 pints per acre. For aerial application, use 3 to 10 gallons of water. Continue application at 10 to 14 day intervals. Use sufficient water to get adequate coverage. This product may be tank-mixed with flowable sulfur products. Reduce spray interval to 7 days during humid weather. Use higher rates when conditions favor disease.	

Crops	Disease Controlled	Rate per Acre
Pears	Fire blight	0.7 to 1.3 pts.
	SPECIFIC DIRECTIONS: Apply at 0.7 to 1.3 pints per acre at 5 day intervals throughout bloom period.	
	<i>Pseudomonas</i> blight	8 to 10.4 pts.
Peas	SPECIFIC DIRECTIONS: Apply this product before Fall rains at a rate of 8 to 10.4 pints per acre and again at dormant before Spring growth starts. Excessive dosages may cause Fruit russet.	
	Powdery mildew	1 to 4 pts.
Pecans	SPECIFIC DIRECTIONS: Begin spray treatment when disease symptoms first appear. Use at 1 to 4 pints per acre according to disease severity. Repeat applications at weekly intervals.	
	Shuck and Kernel rot (<i>Phytophthora cactorum</i>), Zonate leaf spot (<i>Cristulariella pyramidalis</i>)	2.7 to 5.3 pts.
Peppers	SPECIFIC DIRECTIONS: For suppression, apply in sufficient water for good coverage at 2 to 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	16 pts.
	SPECIFIC DIRECTIONS: Mix 1 gallon 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.	
Peppers	Anthracnose, Bacterial spot, Cercospora leaf spot	1.3 to 4 pts.
	SPECIFIC DIRECTIONS: When disease threatens, apply 1.3 to 4 pints per acre in sufficient water for adequate coverage at 7 to 14 day intervals, depending on disease severity	
Pistachios	Botrytis blight, Botryosphaeria Panicle and shoot blight, Septoria leaf blight, Late blight (<i>Alternaria</i>)	5.6 to 10.4 pts.
	SPECIFIC DIRECTIONS: Make initial application at bud swell and repeat on a 14 to 28 day schedule. Use higher rates when conditions favor disease.	
Plums, Prunes	Coryneum blight (Shot hole)	5.6 to 21.6 pts.
	SPECIFIC DIRECTIONS: Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.	
	Brown rot blossom blight	5.6 to 16 pts.
	SPECIFIC DIRECTIONS: Apply as 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.	
	Black knot (Plum)	2.6 to 5.3 pts.
	SPECIFIC DIRECTIONS: Make an application at bud swell up to early bloom for early season disease suppression. Apply before full bloom. Use the higher rates when rainfall is heavy and disease pressure is high. Note: To avoid plant injury, do not use after full bloom.	
Potatoes	Early and Late blight	0.7 to 4 pts.
	SPECIFIC DIRECTIONS: Apply at 7 to 10 day intervals starting when plants are six inches high until two weeks before harvest. Use 0.7 to 2 pints per acre in those locations where disease is light. Use 2 to 4 pints per acre where disease is more severe.	
	Colorado potato beetle (Suppression Only)	0.7 to 4 pts.
	SPECIFIC DIRECTIONS: Use rates and timing identical to those recommended for control of Early and Late blight	

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Crops	Disease Controlled	Rate per Acre
Quince	Fire blight	1.3 pts.
	SPECIFIC DIRECTIONS: Apply at 5 day intervals through bloom period. Apply in adequate water for thorough coverage.	
Raspberry	Anthracnose, Leaf Spot, Cane spot, Pseudomonas blight, Purple blotch, Yellow rust	2.7 to 5.3 pts.
	SPECIFIC DIRECTIONS: Apply as a delayed dormant spray after training in the Spring. Make Fall application after harvest. Add 1 quart of crop oil per acre.	
	Anthracnose, Leaf Spot, Cane spot, Purple blotch, Yellow rust	1.3 pts.
	SPECIFIC DIRECTIONS: Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural-type spray oil may be added. Note: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.	
Spinach	Anthracnose, Blue mold, Cercospora leafspot, Down mildew, White rust	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.	
Strawberries	Downy mildew, Leaf blight, Leaf scorch, Leaf spot	1.3 to 4 pts.
	SPECIFIC DIRECTIONS: Apply at 1.3 to 4 pints per acre. Begin application when plants are established and continue on a weekly schedule throughout season. Discontinue applications if signs of phytotoxicity appear.	
Sugar apple (Annona)	Anthracnose	16 pts.
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Sugar beets, Table beets	Cercospora leaf spot	1.3 to 6.7 pts.
	SPECIFIC DIRECTIONS: Start spray when disease threatens and continue 4 to 5 applications. Spray at 10 to 14 day intervals, depending on weather conditions, at 1.3 to 6.7 pints per acre, depending on disease severity. Addition of suitable agricultural spray oil is recommended.	
Sycamore	Anthracnose	1.3 to 4 pts.
	SPECIFIC DIRECTIONS: Make two applications using 1.3 to 4 pints per 100 gallons as a full cover spray. Make first application at bud crack and second application 7 to 14 days later at 10% leaf expansion.	
Tomatoes	Early blight	1.3 to 4 pts.
	SPECIFIC DIRECTIONS: When disease threatens apply 1.3 to 4 pints per acre at 7 to 10 day intervals.	
	Bacterial speck	1.3 to 2.7 pts.
	SPECIFIC DIRECTIONS: Apply at 1.3 to 2.7 pints per acre at 10 to 30 day intervals beginning when 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	1.3 to 5.3 pts.
SPECIFIC DIRECTIONS: When disease threatens apply 1.3 to 5.3 pints per acre at 7 to 10 day intervals, more frequently when disease is severe.		
Walnut	Walnut blight	5.3 to 17 pts.
	SPECIFIC DIRECTIONS: Apply first spray at early pre-bloom when catkins are partially expanded. Make three additional applications during bloom and early nutlet stages at 7 to 10 day intervals. Additional applications may be necessary when frequent rainfall occurs. Apply 5.3 to 17 pints per acre. Do not apply more than 17 pints per acre per application.	

Crops	Disease Controlled	Rate per Acre
Watercress	Cercospora leaf spot	2.7 pts.
	SPECIFIC DIRECTIONS: Begin application when plants are first established in the field, repeating at 7 to 14 day intervals depending on disease severity and environmental conditions. Do not exceed 4 applications per crop. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.	
Wheat, Barley, Oats	Helminthosporium spot blotch, Septoria leaf blotch	1 to 1.3 pts.
	SPECIFIC DIRECTIONS: Apply 1 to 1.3 pints per acre. Make first application at early heading and follow with second application 10 days later.	

SEED DRESSING

Crops	Disease Controlled	Rate per 1,000 lbs. of Seed
Rice (Not for use in CA)	Water mold (<i>Achlya spp.</i>), Seed rot (<i>Pythium spp.</i>)	2 to 4 fl. ozs.
	SPECIFIC DIRECTIONS: Use at a rate of 2 to 4 fluid ounces for each 100 pounds of Rice seed. For ease of handling and when using a seed treating machine, dilute with an equal amount of water. Maintain continuous agitation of the mixture throughout the operation. Consult State Agricultural Experiment Station regarding specific recommendations for your area.	
Wheat, Barley (Not for use in CA)	Bacterial leaf blight (<i>Pseudomonas syringae</i>), Bacterial leaf streak (<i>Xanthomonas translucens</i>), Common bunt (<i>Tilletia caries</i>)	2 fl. ozs.
	SPECIFIC DIRECTIONS: Apply at the rate of 2 fluid ounces of formulated product per 100 pounds of seed. It should be diluted with equal parts of water before applying.	

TURFGRASS

Crops	Disease Controlled	Rate per Acre
Turfgrass	Algae	0.7 pt. per 1,000 sq. ft.
	SPECIFIC DIRECTIONS: Apply per 1,000 square feet in 5 gallons of water. May be used as a maintenance spray as needed. May be used alone or in combination with fungicides such as dithiocarbamates. Phytotoxicity may depend on varietal differences. Apply the recommended rate to a small area and observe for 7 to 10 days for phytotoxicity. If phytotoxicity occurs, discontinue use.	

GREENHOUSE AND SHADEHOUSE CROPS

Notice to User: This product may be used in greenhouses and shadehouses to control diseases on crops which appear on this label, and specific instructions have been developed for the crops listed. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shadehouses differs greatly from crops grown under field conditions. Neither the manufacturer nor seller has determined whether or not this product can be used safely on all greenhouse and shadehouse grown crops. The user should determine if this product can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e., foliage, fruit, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use. Apply this product according to specific rates given for those crops in pints per acre. One tablespoon of this product per 1,000 square feet is equivalent to 1 pint per acre. This product should be applied in adequate water for thorough coverage of plant parts. Begin application at first sign of disease and repeat at 7 to 14 day intervals or as needed; Use shorter spray intervals during periods when severe disease conditions persist. Note: Phytotoxicity may occur on young tender flush when this product is applied to Citrus seedlings grown in greenhouses or shadehouses.

GREENHOUSE AND SHADEHOUSE CRO (Con't)

Crops	Disease Controlled	Rate per 1000 sq. ft.
Citrus (Non-bearing nursery)	Brown rot, Citrus canker, Greasy spot, Melanose, Pink pitting, Scab	3 tbsps.
	SPECIFIC DIRECTIONS: Begin application when disease first threatens. Repeat at 30 day intervals or as needed depending on disease severity.	
Cucumber	Angular leaf spot, Downy mildew	1 to 2 tbsps.
	SPECIFIC DIRECTIONS: Apply weekly when plants begin to vine. Use the higher rates when conditions favor disease.	
Eggplant	Alternaria blight, Anthracnose, Phomopsis	1.5 tbsps.
	SPECIFIC DIRECTIONS: Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals or as needed depending on disease severity.	
Pepper	Bacterial spot	1.5 to 2 tbsps.
	SPECIFIC DIRECTIONS: Begin applications when conditions first favor disease development and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use the higher rates when conditions favor disease.	
Tomato	Anthracnose, Bacterial speck, Bacterial spot, Early blight, Gray leaf mold, Late blight, Septoria leaf spot	1.5 to 3 tbsps.
	SPECIFIC DIRECTIONS: Begin applications when disease first threatens and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use the higher rates when conditions favor disease.	

ORNAMENTALS

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

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

Apply as a thorough coverage spray using 1.3 pints per 100 gallons of water. Begin application at first sign of disease and repeat at 7 to 14 day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist.

For ornamental crops in dormancy, apply as a thorough cover spray at rates ranging from 0.7 to 2.7 pints per acre of this product. When new growth is present, apply as thorough cover spray at 0.7 to 2 pints per acre. One tablespoon of this product per 1,000 sq. ft. is equivalent to 1 pint per acre.

This product may be used as a maintenance spray alone or in combination with other fungicides such as the dithiocarbamates.

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

ORNAMENTAL	DISEASE
Aglaonema*	Bacterial leaf spot
Althea (Rose of Sharon)	Bacterial leaf spot
Andromeda, Japanese*	Leaf spot, Twig blight
Aralia	Xanthomonas and Cercospora leaf spots, Alternaria
Arborvitae	Alternaria twig blight, Cercospora leaf blight
Aster*	Downy mildew, Leaf spots
Azalea ¹	Cercospora leaf spot, Botrytis blight, Phytophthora dieback, Powdery mildew
Beech*	Leaf spots
Begonia	Bacterial leaf spot, (<i>Erwinia</i> , <i>Pseudomonas</i> , <i>Xanthomonas</i>), Anthracnose
Bougainvillea	Anthracnose, Bacterial leaf spot

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ORNAMENTAL	DISEASE
Boxwood*	Leaf spots
Bulbs (Easter Lily**, Tulip, Gladiolus)	Anthracnose, Botrytis blight
Camellia	Anthracnose, Bacterial leaf spot
Camphor tree	Pseudomonas leaf spot
Canna	Pseudomonas leaf spot
Carnation ¹	Alternaria blight, Pseudomonas leaf spot, and Botrytis blight
Cedar*	Tip blight
Cherry, Nanking*	Bacterial leaf spot
Chinese tallow tree	Bacterial leaf spot (<i>Xanthomonas spp.</i> , <i>Pseudomonas spp.</i>)
Chrysanthemum ¹	Septoria leaf spot, Pseudomonas leaf spot and Botrytis blight
Cotoneaster	Botrytis blight
Crabapple*	Fire blight
Cypress*	Twig blight
Dahlia	Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot
Delphinium*	Leaf spots
Dianthus	Bacterial spot, Bacterial soft rot
Dogwood (flowering)	Anthracnose
Dogwood, Koussa*	Fungal leaf spots
Douglas Fir	Rhabdocone needlecast
Dracaena*	Bacterial leaf spot
Dumb cane* (<i>Dieffenbachia spp.</i>)	Bacterial leaf spot
Dusty miller	Bacterial leaf spot (<i>Pseudomonas cichorii</i>)
Echinacea	Bacterial leaf spot (<i>Pseudomonas cichorii</i>)
Elm "Drake"	Xanthomonas leaf spot
Euonymus	Botrytis blight and Anthracnose
European fan palm	Pestalotia leaf spot
Fern, Boston* (<i>Nephrolepis exaltata</i>)	Bacterial leaf spot
Fern, Holly (<i>Cyrtornium falcatum</i>)	Pseudomonas leaf spot
Fig, Weeping* (<i>Ficus benjamina</i>)	Bacterial leaf spot
Filbert (Ornamental)*	Filbert blight
Fir*	Needlecasts
Gardenia	Alternaria leaf spot, Botrytis bud rot, Cercospora leaf spot
Geranium	Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot
Gladiolus	Alternaria leaf spot, Anthracnose, Botrytis gray mold, Bacterial leaf blight
Golden rain tree	Bacterial leaf spot
Grape Ivy*	Bacterial leaf spot
Hawthorn*	Fire blight
Hibiscus ²	Bacterial leaf spot
Holly*	Leaf spots, Bacterial blight
Honeylocust*	Bacterial leaf spot
Honeysuckle, Tatarian*	Bacterial leaf spot
Impatiens	Bacterial leaf spot
Indian hawthorn ³	Anthracnose, <i>Erwinia</i> leaf spot
Iris ⁵	Bacterial leaf spot
Ivy ¹	Xanthomonas leaf spot
Kora	Xanthomonas leaf spot

(Continued)

(Con't)

ORNAMENTAL	DISEASE
Juniper	Anthrachnose, Phomopsis twig dieback*
Lantana	Bacterial leaf spot
Leyland Cypress*	Cercospora needle blight
Lilac	Cercospora leaf spot, Pseudomonas blight
Lily, Easter ⁴	Botrytis blight
Linden*	Anthrachnose, Leaf blight
Loblolly bay	Anthrachnose
Loquat	<i>Entomosporium maculata</i> , <i>Colletotrichum sp.</i>
Magnolia (Southern)	Algal leaf spot, Anthrachnose, Bacterial leaf spot
Magnolia (Sweet bay)	Anthrachnose
Magnolia (Oriental)	Bacterial leaf spot
Mandevillas	Anthrachnose
Maple*	Pseudomonas leaf blight
Marigold	Alternaria leaf spot, Botrytis leaf and Flower rot, Cercospora leaf spot
Mountain-Ash*	Fire blight
Mulberry, Contorted*	Bacterial leaf spot
Mulberry, weeping	Bacterial leaf spot
Narcissus*	Leaf blight
Nephtytis*	Bacterial leaf spot
Oak*	Leaf spots
Oak, Laurel	Algal leaf spot (<i>Cephaleuros virescens</i>)
Oleander	Bacterial leaf spot, Fungal leaf spot
Oregon Grapeholly*	Leaf spots
Pachysandra	Volutella leaf blight
Palm, Date	Pestalotia leaf spot
Palm, European fan	Pestalotia leaf spot
Palm, Parlor*	Bacterial leaf spot
Palm, Queen	Exosporium leaf spot, Phytophthora bud rot
Palm, Washingtonia	Pestalotia leaf spot
Pansy	Downy mildew
Peach (Flowering) ⁶	Bacterial blast, Brown rot, Fire blight
Pear (Flowering)	Fireblight, Leaf spot
Pentas (Egyptian star)	Bacterial leaf spot (<i>Xanthomonas spp.</i> , <i>Pseudomonas spp.</i> *)
Peony	Botrytis blight
Periwinkle	Phomopsis stem blight
Philodendron	Bacterial leaf spot
Phlox	Alternaria leaf spot
Photinia (Red tip)	Anthrachnose, Entomosporium leaf spot
Pine*	Needlecasts
Pistachio	Anthrachnose
Plantain lily ⁶	Bacterial leaf spot
Plum (Flowering) ⁶	Bacterial blast, Bacterial leaf spot, Brown rot, Fire blight
Pothos*	Bacterial leaf spot
Powder puff plant	Bacterial leaf spot
Pyracantha	Fireblight and Scab
Rhododendron	Alternaria flower spot
Rose ¹	Powdery mildew, Black spot
Snapdragon	Anthrachnose, Dieback, Downy mildew
Spathe Flower*	Bacterial leaf spot
Spirea*	Fire blight
Spruce*	Needlecasts
Sycamore	Anthrachnose, Leaf spots*

(Continued)

(Con't)

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ORNAMENTAL	DISEASE
Tulip	Anthrachnose, Botrytis blight
Umbrella tree*	Bacterial leaf spot
Verbena	Xanthomonas leaf spot
Viburnum	Anthrachnose
Viola (Pansy, Violet)	Downy mildew
Weeping willow	Anthrachnose
Yew*	Needle blight
Yucca (Adams needle)	Cercospora and Septoria leaf spot
Zinnia* Zinnia spp.	Leaf spots

* Except CA

** For Easter Lily, use 4 to 6.7 pints per 100 gallons.

¹ Discoloration of foliage and/or blooms have been noted on some varieties. To prevent residues on commercial plants, do not spray just before selling season.

² Do not apply to Hibiscus in flower.

³ For Indian hawthorn, use 2.7 to 5.3 pints per 100 gallons.

⁴ Apply this product at 2 to 3.5 pints per acre.

⁵ Some cultivars may be sensitive to this product.

⁶ Apply dormant through bloom only.

Note: Phytotoxicity may depend on varietal differences. If unfamiliar with the use of this product, apply the recommended rate to a few plants and observe after 7 to 10 days for symptoms of phytotoxicity.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store unused product in original container only in cool, dry area out of reach of children and animals.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration if allowed by State and Local authorities. If burned, stay out of smoke.

CONTAINER DISPOSAL:

Nonrefillable Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons or greater): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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STORAGE AND DISPOSAL (Cont.)

For Residential/Household Use:

PESTICIDE DISPOSAL: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. If empty, place in trash or offer for recycling if available. If partially filled, call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

WARRANTY—CONDITIONS OF SALE

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. In no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

