

19713-321

06-10-2010

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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

JUN 10 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 14, 2010 for:

EPA Registration 19713-321

Drexel Kop Hydroxide 50W

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,

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



United States
Environmental Protection Agency
 Washington, DC 20460

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 19713-321	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 50W	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

Amendment - Explain below. Final printed labels in response to Agency letter dated _____ **NOTIFICATION**

Resubmission in response to Agency letter dated _____ "Me Too" Application. **JUN 10 2010**

Notification - Explain below. 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:

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 checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input checked="" type="checkbox"/> Paper <input checked="" type="checkbox"/> Other (Specify) POLYBAG
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container
		20 LBS	1

3. Location of Net Contents Information
 Label Container

4. Size(s) Retail Container
1, 2, 5, 10, 15, 20, 30, 50 LBS

5. Location of Label Directions
 On the label

6. Manner in Which Label is Affixed to Product
 Lithograph Paper, glued Stenciled 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) (901) 274-4370
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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>	3. Title REGISTRATION MANAGER
4. Typed Name LUZ G CHAN	5. Date May 14, 2010



Drexel Chemical Company

May 14, 2010

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

**Re: Submission of Revised Label per PR Notice 2007-4
DREXEL KOP HYDROXIDE 50W (EPA Reg. No. 19713-321)**

Herewith:

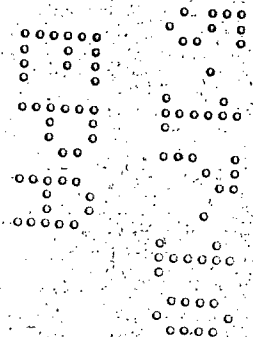
1. Completed EPA Form 8570-1
2. Two copies (marked and unmarked) of the label (321MSP-0410*) with updated container disposal statements.
3. Certification statement

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,
DREXEL CHEMICAL COMPANY

Luz G Chan
Registration Manager



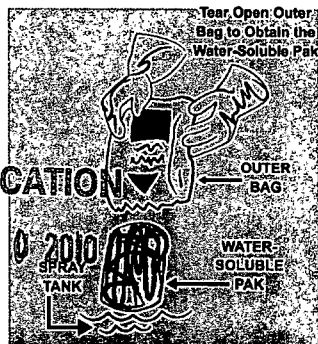
MASTER LABEL

Note to EPA: Shaded text added for water-soluble package.



NOTIFICATION

JUN 10 2010



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KOP-Hydroxide™ 50W

Agricultural Fungicide-Bactericide

Water-Soluble Packaging

ACTIVE INGREDIENT:

Copper Hydroxide* 77.0%

OTHER INGREDIENTS: 23.0%

TOTAL: 100.0%

*Metallic copper equivalent 50%.

KEEP OUT OF REACH OF CHILDREN

DANGER / PELIGRO

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

See FIRST AID Below

EPA Reg. No. 19713-321

EPA Est. No. 19713-XX-XXX

Net Content:

20 Pounds

FIRST AID

IF IN EYES:

- 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.

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.

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.

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

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER. Corrosive. Causes irreversible eye damage. Do not get in eyes. Causes skin irritation. Harmful if swallowed, absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with the skin, eyes or clothing. Avoid breathing dust.

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.

(Continued)

PRECAUTIONARY STATEMENTS (Con't)

Applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves such as polyethylene or polyvinyl chloride, shoes plus socks, and protective eyewear. 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.

Water-soluble packets when used correctly qualify as a closed-loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, and socks.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

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

USER SAFETY RECOMMENDATIONS

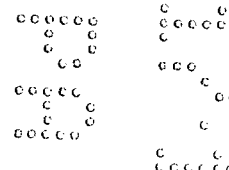
Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent sites. Do not contaminate water by disposal of equipment washwaters.

GENERAL INFORMATION

Use this product according to "DIRECTIONS FOR USE". This product can be applied from aircraft and ground spraying equipment. Depending upon equipment used and the specific crop, the volume applied per acre differs. Refer to the general "MINIMUM RECOMMENDED SPRAY VOLUME" table.



Manufactured By:

Drexel Chemical Company

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

SINCE 1972

MIXING INSTRUCTIONS

This product may be applied as an aerial, and dilute or ground concentrate spray unless specifically directed otherwise by crop. When selecting a use rate for this product, do not apply less than the label recommended minimum amount. Under heavy disease pressure or when conditions favor such, use the higher rate and shorter spray intervals specified for each crop. In addition, use the higher rates for larger mature tree crops.

The per acre use rate of this product is applicable for both dilute and concentrate spraying. Consult this product label for specific rates and timing of application by crop.

Complete spray coverage is essential to assure optimum performance from this product. When treating on a concentrate basis or by aerial application, unless you have had specific previous experience, it is advisable to test for compatibility and crop tolerance prior to full scale commercial utilization.

While volume is important in obtaining full spray coverage, often factors such as foliage density, environmental conditions and sprayer calibration have a greater impact. Always be sure that sprayers are calibrated to manufacturer's specifications and environmental conditions are within those recommended by state and local regulatory authorities. When mixing, fill spray tank one-half full with water. Add this product slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Spreaders, stickers, spray and crop oil (cleared for application to growing crops) should be added last. If compatibility is in question, use the compatibility jar test before mixing a whole tank.

Note: THIS PRODUCT SHOULD NOT BE APPLIED IN A SPRAY SOLUTION HAVING A pH LESS THAN 6.5 OR GREATER THAN 9.0 AS PHYTO-TOXICITY MAY OCCUR.

Environmental conditions such as extended periods of wet weather, acid rain, etc., which alter the pH of the leaf surface may affect the performance of this product resulting in possible phytotoxicity or loss of effectiveness.

The materials used in the construction of application equipment should be identified before it is used to apply this product. Agricultural chemicals such as this product often react with soft metals such as aluminum and some synthetic materials such as plastics. After completing the application of this product with equipment containing these materials and before overnight storage, thoroughly flush the mixing and application system with clean water.

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

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 (WPS), 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) and restricted entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 24 hours. 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 the eye wash.

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

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter treated areas without protective clothing until sprays have dried.

DIRECTIONS FOR WATER-SOLUBLE BAGS

Paks containing this product are water-soluble. Do not allow pak to become wet prior to adding to the spray tank. Do not handle paks with wet hands. To prepare the spray mixture, drop the required number of unopened paks into spray tank while filling with the appropriate amount of water. Operate the agitator while mixing. Depending on the water temperature and the degree of agitation, the paks should be completely dissolved in approximately 5 minutes from the time they are added to the water. Use the specified dosage of this product in the amount of water necessary to give complete coverage. Determine the total amount to be added to the spray tank based on the rates in the "CROP" section.

Note: Products containing boron and/or fertilizers will prevent the water-soluble packet from dissolving. Boron and/or fertilizer products must only be added after packet(s) have completely dissolved.

Minimum Recommended Spray Volume

Given as Gallons per Acre (GPA) to be used when applying this product:

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

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

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

GENERAL CHEMIGATION INSTRUCTIONS

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

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact your State Extension Service Specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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

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

SAFETY DEVICES

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

- 2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent back 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.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

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

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

The 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 not a water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

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

POSTING INSTRUCTIONS

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, inpatient clinics, nursing homes or any public areas such as schools, parks, playgrounds or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any location affording maximum visibility to the sensitive areas.

The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2.5 inches tall and all letters and the symbol shall be in a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

Note: This sign is in addition to any sign posted to comply with the Worker Protection Standard (WPS).

CROPS

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

APPLICATION FOR 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 prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola* and *Pseudomonas fluorescens*) and may thereby provide some protection against light frost. The degree of frost protection will vary with weather conditions and other factors. Not recommended for those geographical areas where weather conditions favor severe frost.

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Alfalfa	Cercospora, Leptosphaerulina leaf spots	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Apply 10 to 14 days before each harvest or earlier if disease threatens. Note: Spray injury may occur with sensitive varieties such as Lahontan.		
Almonds	Coryneum blight, Blossom brown rot	8 to 12 lbs.	2 to 3 paks per 5 acres
	USE INSTRUCTIONS: Dormant application - Apply before foliage buds begin to swell. Use higher rates when rainfall is heavy and disease pressure is high.		
	Coryneum blight, Blossom brown rot	6 to 8 lbs.	3 to 4 paks per 5 acres
	USE INSTRUCTIONS: Early bloom (popcorn) application - Apply before full bloom. Use higher rates when rainfall is heavy and disease pressure is high. Note: To avoid plant injury, do not use above rate after full bloom.		
Almonds	Bacterial blast (<i>Pseudomonas</i>)	12 to 16 lbs.	3 to 4 paks per 5 acres
	USE INSTRUCTIONS: Apply at dormant to early pink bud. Note: Injury may occur from post-bloom sprays, especially on Neplus varieties.		
	Bacterial blast (<i>Pseudomonas</i>)	1 lb.	1 pak per 20 acres
Apples	Anthracnose, European canker, <i>Pseudomonas</i>	12 to 16 lbs.	3 to 4 paks per 5 acres
	USE INSTRUCTIONS: Apply before Fall rains. Use higher rates under severe disease conditions. Note: Use on yellow varieties may cause discoloration. To avoid, pick before spraying.		
	Fire blight	8 to 16 lbs.	1 to 2 paks per 2.5 acres
	USE INSTRUCTIONS: Make application between silver tip and green tip. Apply as a full cover spray. Note: Crop injury may occur from late application; discontinue use when green tip reaches one-half inch.		
Apples	Crown or Collar rot	4 lbs.	1 pak per 5 acres
	USE INSTRUCTIONS: Mix in 100 gals. of water. Apply 4 gals. of suspension as a drench on the lower trunk area of each tree. Apply either in early Spring or late Fall after harvest. Note: Do not use if soil pH is below 5.5 since copper toxicity may result.		
Apricots	Coryneum blight (Shot hole), Blossom brown rot	8 to 12 lbs.	2 to 3 paks per 5 acres
	USE INSTRUCTIONS: Apply at popcorn to full bloom. Use higher rates when conditions favor disease. Note: Applications applied after bloom will result in crop injury.		
Atemoya	Anthracnose	3 lbs.	3 paks per 20 acres
Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.			
Avocados	Anthracnose, Blotch, Scab	8 to 12 lbs.	2 to 3 paks per 5 acres
	USE INSTRUCTIONS: Apply when bloom buds begin to swell and continue application at monthly intervals for 5 to 6 applications. Use higher rate when conditions favor disease.		
Bananas	Sigatoka	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Apply by air in 3 gals. of water combining 0.5 gal. of a suitable agricultural spray oil. Apply on a 14-day schedule throughout the wet season. Apply at 21-day intervals during dry periods.		
	Black pitting	4 lbs.	1 pak per 5 acres
USE INSTRUCTIONS: Apply in 100 gals. of water (4 lbs. per acre) directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.			
Beans	Bacterial blight (halo and common), Brown spot	1 to 3 lbs.	1 to 3 paks per 20 acres
	USE INSTRUCTIONS: Use the higher rate for more severe disease. For protective sprays, make first application when plants are 6 inches high. Repeat on a 7- to 14-day schedule depending upon local conditions		

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(Continued)

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Blackberries (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chehalems, and Thornless evergreens)	Leaf spot, Cane spot, Purple blotch, Anthracnose, Yellow rust, Pseudomonas blight	4 lbs.	1 pak per 5 acres
	USE INSTRUCTIONS: Apply as delayed dormant spray after training in the Spring. Make Fall application after harvest. Add 1 qt. of crop oil per acre.		
	Leaf spot, Cane spot, Purple blotch, Anthracnose, Yellow rust, Pseudomonas blight	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Apply when leaf buds begin to open and repeat when flower buds show white. Add one quart of crop oil per acre. Note: Crop injury may occur if applied to foliage under certain conditions such as hot or prolonged moist periods. Discontinue application if signs of crop injury appear.		
Blueberries	Bacterial canker	6 lbs.	3 paks per 10 acres
	USE INSTRUCTIONS: Make first application before Fall rains and a second application four weeks later.		
Broccoli, Brussels sprouts, Cabbage, Cauliflower, Greens (Beet, Collard, Mustard, Turnip)	Black rot (<i>Xanthomonas</i>), Black leaf spot (<i>Alternaria</i>), Downy mildew (<i>Peronospora</i>)	1 to 2 lbs.	1 to 2 paks per 20 acres
	USE INSTRUCTIONS: Apply at 7- to 10-day intervals. For control of diseases 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. Use higher rates when conditions favor disease. Note: Reddening of older leaves may occur on Broccoli and flecking of wrapper leaves may occur on Cabbage.		
Cacao	Black pod	2 to 8.5 lbs.	4 to 17 paks per 40 acres
	USE INSTRUCTIONS: Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made at 2 to 4.5 pounds (3 to 7 paks per 30 acres) as often as 14 to 21 days in high rainfall areas at varying rates depending on disease severity. For drier areas, where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 8.5 lbs. per acre (17 paks per 40 acres) according to disease incidence and planting density.		
Cantaloupes, Honeydews, Muskmelons	Downy mildew	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin application when conditions are favorable for disease development and repeat at 5- to 7-day intervals as needed, depending on disease severity.		
Carambola	Anthracnose	6 lbs.	3 paks per 10 acres
	USE INSTRUCTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.		
Carrots	Alternaria, Cercospora leaf spot	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin application when disease first threatens and repeat at 7- to 14-day intervals as needed depending on disease.		
Celery, Celeriac	Cercospora early blight, Septoria late blight, Bacterial blight	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin application as plants are first established in the field, repeating at 5- to 7-day intervals depending on disease severity and environmental conditions.		
Cherries	Dead bud (<i>Pseudomonas syringae</i>), Coryneum blight	8 to 12 lbs.	2 to 3 paks per 5 acres
	USE INSTRUCTIONS: Make first application in Fall before heavy rains and a second at late dormant. In orchards where the disease is severe, a spray should also be applied shortly after harvest. Add 1 pt. of superior-type oil per 100 gals. of water as a dilute spray.		
	Brown rot, Blossom blight	8 to 12 lbs.	2 to 3 paks per 5 acres
USE INSTRUCTIONS: Apply a full cover spray at popcorn stage and a second application at full bloom. Note: To avoid injury, do not use after full bloom.			

(Continued)

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Chives	Downy mildew	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin applications when plants are established in the field. Repeat applications every 7-10 days as dictated by disease conditions. If disease pressure is high, use the shorter spray interval.		
Coffee	Coffee berry disease (<i>Colletotrichum coffeanum</i>)	6 to 8 lbs.	3 to 4 paks per 10 acres
	USE INSTRUCTIONS: Apply first spray after flowering and before onset 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.		
	Bacterial blight (<i>Pseudomonas syringae</i>)	6 to 8 lbs.	3 to 4 paks per 10 acres
	USE INSTRUCTIONS: Begin spray program before the onset of the long rains and continue throughout the rainy season at 14- to 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. Use higher rates when rainfall is heavy and disease pressure is high.		
	Leaf rust (<i>Hemileia vastatrix</i>)	2 to 4 lbs.	1 to 2 paks per 10 acres
	USE INSTRUCTIONS: 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.		
	Iron spot (<i>Cercospora coffeicola</i>), Pink disease (<i>Corticium salmonicolor</i>)	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.		
Cranberries	Fruit rot	8 lbs.	1 pak per 2.5 acres
	USE INSTRUCTIONS: Make first application in late bloom. One or two additional applications at 10- to 14-day intervals may be required, depending upon disease severity.		
	Rose bloom	8 lbs.	1 pak per 2.5 acres
	USE INSTRUCTIONS: Apply three sprays on 10- to 14-day schedule as soon as symptoms are observed.		
	Bacterial stem canker	8 lbs.	1 pak per 2.5 acres
	USE INSTRUCTIONS: Apply postharvest and again in Spring before bud burst. One or two additional applications at 10- to 14-day intervals may be required depending upon disease severity.		
	Tip blight (<i>Monolinia</i>), Stem and Leaf blight, Red leaf spot	8 lbs.	1 pak per 2.5 acres
	USE INSTRUCTIONS: Apply delayed dormant spray in the Spring. Repeat at 10- to 14-day intervals as needed through pre-bloom.		
Cucumbers	Angular leaf spot, Downy mildew	1.5 to 2 lbs.	3 to 4 paks per 40 acres
	USE INSTRUCTIONS: Apply weekly when plants begin to vine.		
Currants, Gooseberries	Leaf spot, Anthracnose	10 lbs.	1 pak per 2 acres
	USE INSTRUCTIONS: Make initial application after first leaves have expanded. Continue on a 10- to 14-day schedule during wet conditions in the Spring. Make an additional application after harvest.		
Dill	Phoma leaf spot, (<i>Rhizoctonia</i>), Foliage blight	2 to 3 lbs.	2 to 3 paks per 20 acres
	USE INSTRUCTIONS: 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.		
Eggplant	Alternaria blight, Anthracnose, Phomopsis	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin application prior to development of disease symptoms. Repeat spray at 7- to 10-day intervals or as needed, depending on disease severity.		

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(Continued)

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Filberts	Bacterial blight	16 to 24 lbs.	8 to 12 paks per 10 acres
	USE INSTRUCTIONS: Apply as a post-harvest spray in late August or early September. In seasons of heavy rainfall apply a second spray when three-fourths of the leaves have dropped. Add 1 pt. of superior-type oil per 100 gals. of water.		
	Eastern filbert blight	16 to 24 lbs.	8 to 12 paks per 10 acres
	USE INSTRUCTIONS: Apply as a dilute spray in adequate water for thorough coverage. Make initial application after harvest in October before heavy Winter rains begin. The next application should be made in late February to early March followed by another application one month later. If desired, add 1 pint of a sticking agent or superior-type oil per 100 gallons of water.		
Ginseng	Alternaria leaf and stem blight	2.6 lbs.	2 paks per 15 acres
	USE INSTRUCTIONS: Use as a tank mix with 2 lbs. of Rovral 50W used in 100 gallons of water. Begin applications as soon as plants emerge in Spring. Applications should be repeated every 7 days until plants become dormant in Fall. If scheduled application is to be made before a rain shower, apply fungicides at least 8 hours before the rain, giving the fungicides time to dry on the plants. Use of a spreader-sticker or sticker is advised. Note: Alternaria leaf and stem blight are most severe in humid conditions such as those found in the dense canopies of 2 to 4 years 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.		
Grapes	Black rot, Powdery mildew, Downy mildew, Phomopsis, Leaf blight	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin application 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, Niagra and Rosette. Either test for sensitivity or add 1 to 3 lbs. of hydrated lime per pound of this product.		
Guava	Anthraxnose, Red algae	3 lbs.	2 paks per 13 acres
	USE INSTRUCTIONS: 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	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Make crown treatment after pruning, but before training. After training, additional treatments are needed at about 10-day intervals. Note: Discontinue use 2 weeks before harvest.		
Kiwi	<i>Pseudomonas syringae</i> , <i>Erwinia herbicola</i> , <i>Pseudomonas fluorescens</i>	8 lbs.	2 paks per 5 acres
	USE INSTRUCTIONS: Apply in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of 3 applications may be made.		
Lettuce, Endive, Escarole	Downy mildew	1 to 2 lbs.	1 to 2 paks per 20 acres
	USE INSTRUCTIONS: Begin treatment when disease first appears and repeat every 3-10 days as needed to suppress disease. Note: Flecking and/or yellowing of leaves will occur under certain environmental conditions such as extended periods of moist weather, acid rains, or other conditions favoring reduced pH on leaf surfaces. Injury may be severe enough to reduce crop value. Increasing the volume of spray water will frequently decrease phytotoxicity potential.		
Litchi	Anthraxnose	3 lbs.	2 paks per 13 acres
	USE INSTRUCTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.		

(Continued)

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Macadamia nuts	Anthraxnose	6 lbs.	3 paks per 10 acres
	USE INSTRUCTIONS: Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.		
	Phytophthora blight (<i>P. capsici</i>), Raceme blight (<i>Botrytis cinerea</i>)	4.5 to 6 lbs.	3 paks per 10 to 13.3 acres
	USE INSTRUCTIONS: Apply during raceme development and bloom periods. Apply in sufficient water for thorough coverage.		
Mamey sapote	Anthraxnose, Algal leaf spot	6 to 8 lbs.	3 paks per 5 acres
	USE INSTRUCTIONS: Apply when conditions favor disease development. Repeat on 14-30 day schedule as disease severity and environmental conditions dictate.		
Mangoes	Anthraxnose	8 lbs.	2 paks per 5 acres
	USE INSTRUCTIONS: Apply monthly after fruit set until harvest.		
Olives	Peacock spot, Olive knot	8 to 12 lbs.	2 to 3 paks per 5 acres
	USE INSTRUCTIONS: Make first application before Winter rain fall. A second application in early Spring should be made if disease is severe. Apply the high rate for heavy disease pressure or when conditions favor such.		
Onions	Purple blotch, Downy mildew	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin when plants are 4 to 6 inches high and repeat at 7- to 10-day intervals or as needed, depending on disease severity. Can cause phytotoxicity on leaves.		
	Bacterial blight	1 to 1.5 lbs.	1 pak per 13.3 to 20 acres
	USE INSTRUCTIONS: Begin when plants are 4 to 6 inches high and repeat at 7- to 10-day intervals or as needed, depending on disease severity. Can cause phytotoxicity on leaves.		
Papaya	Anthraxnose	4 to 10 lbs.	2 to 5 paks per 10 acres
	USE INSTRUCTIONS: Apply before disease appears. Apply at 10 to 14 day intervals under light disease pressure and at 5- to 7-day intervals under heavy disease pressure. The addition of any approved spreader is desirable.		
Parsley	Bacterial blight (<i>Pseudomonas sp.</i>)	3 lbs.	2 paks per 13 acres
	USE INSTRUCTIONS: 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	Anthraxnose	6 lbs.	3 paks per 10 acres
	USE INSTRUCTIONS: 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	Leaf curl, Coryneum blight (shot hole), Bacterial canker and Blast (<i>Pseudomonas</i>), Bacterial spot (<i>Xanthomonas</i>)	8 to 16 lbs.	1 to 2 paks per 2.5 acres
	USE INSTRUCTIONS: Apply at leaf fall. Use the highest rate when rainfall is very heavy and disease pressure is high. May be used with agricultural spray oil.		
	Brown rot blossom blight	8 to 12 lbs.	2 to 3 paks per 5 acres
	USE INSTRUCTIONS: Apply as full cover spray at pink bud. Application at this time affords some control of Leaf curl and Coryneum blight.		
	Bacterial spot	1 lb.	1 pak per 20 acres
	USE INSTRUCTIONS: Make post-bloom application at first and second cover sprays.		
	Bacterial spot	8 lbs.	2 paks per 5 acres
	USE INSTRUCTIONS: Apply as a dormant spray.		

Note: Do not spray later than three weeks prior to harvest. Use only recommended rates. Spotting of leaves and defoliation may occur from use in cover sprays.

(Continued)

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Peanuts	Cercospora leaf spot	1.5 to 3 lbs.	1 to 2 paks per 13 acres
	USE INSTRUCTIONS: Begin spraying at 35 to 40 days after planting or when disease symptoms first appear and repeat at 10- to 14-day intervals as needed. Reduce sprays to 7-day intervals during humid weather. Use higher rates when weather conditions favor disease. Note: The use of one to two quarts of Sulfur 6L per acre may be added.		
Pears	Fire blight	1 lb.	1 pak per 20 acres
	USE INSTRUCTIONS: Apply at 5-day intervals throughout the bloom period.		
	Blossom blast (<i>Pseudomonas</i> blight)	12 to 16 lbs.	3 to 4 paks per 5 acres
USE INSTRUCTIONS: Apply before Fall rains and again during dormancy before Spring growth starts. Use the higher rates when disease pressure is high or when conditions favor the development of such. Note: May cause Fruit russet on copper sensitive varieties.			
Peas	Powdery mildew	1.5 to 3 lbs.	1 to 2 paks per 13 acres
	USE INSTRUCTIONS: Begin application when disease symptoms first appear and repeat at weekly intervals as needed. Use higher rate for more severe disease.		
Pecans	Shuck and Kernel rot (<i>Phytophthora cactorum</i>), Zonate leaf spot (<i>Cristulariella pyramidalis</i>)	2 to 4 lbs.	1 to 2 paks per 10 acres
	USE INSTRUCTIONS: For suppression, apply in sufficient water to ensure complete spray 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, Alga, Lichen	6 lbs.	3 paks per 10 acres
	USE INSTRUCTIONS: Mix with spreader-sticker on a dilute spray basis and apply in dormant season before buds swell, thoroughly wetting limbs and mosses.		
Pecans (FL and TX)	Ball Moss	6 lbs.	3 paks per 10 acres
	USE INSTRUCTIONS: Apply 6 pounds per 100 gallons of water, in the Spring, when Ball moss is actively growing, using 1.5 gallons of spray per foot of tree height. Make sure to wet Ball moss tufts thoroughly. A second application may be required after 12 months. Note: This product may be injurious to ornamentals grown under Live Oaks. This product may be reactive on metal and masonry surfaces. Do not spray on cars, houses, lawn furniture, etc.		
	Shuck and Kernel rot (<i>Phytophthora cactorum</i>), Zonate leaf spot (<i>Cristulariella pyramidalis</i>)	2 to 4 lbs.	1 to 2 paks per 10 acres
	USE INSTRUCTIONS: For suppression, apply in sufficient water to ensure complete spray 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.		
Peppers	Mosses, Alga, Lichen	6 lbs.	3 paks per 10 acres
	USE INSTRUCTIONS: Mix with spreader-sticker on a dilute spray basis and apply in dormant season before buds swell, thoroughly wetting limbs and mosses.		
	Bacterial spot	2 to 3 lbs.	2 to 3 paks per 20 acres
USE INSTRUCTIONS: Begin applications when conditions first favor disease development and repeat at 5- to 10-day intervals as needed depending on disease severity. Use higher rates for severe disease.			
Pistachios	Botrytis blight (<i>Botryosphaeria</i>), Panicle and Shoot blight, Septoria leaf blight, Late blight (<i>Alternaria alternata</i>)	4 to 8 lbs.	1 to 2 paks per 5 acres
	USE INSTRUCTIONS: 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 high rate and short spray interval.		
Plums, Prunes	Coryneum blight (shot hole)	8 to 16 lbs.	1 to 2 paks per 2.5 acres
	USE INSTRUCTIONS: Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.		
	Brown rot, Blossom blight	8 to 12 lbs.	2 to 3 paks per 5 acres
USE INSTRUCTIONS: Apply full cover application at pink, red or early white stage. Use the higher rate when disease pressure is heavy or conditions favor the development of such.			

(Continued)

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Potatoes	Early blight, Late blight	1 to 4 lbs.	1 to 4 paks per 20 acres
	USE INSTRUCTIONS: Apply at 1 to 1.5 lbs. (2 to 3 paks per 40 acres) at 7- to 10-day intervals starting when plants are 6 inches high until 2 weeks before harvest in locations where disease is light. Use 3 to 4 lbs. per acre (3 to 4 paks per 20 acres) where disease is more severe. Under conditions of severe disease, control with this product will be improved by tank mixing with other compatible fungicides registered for use on Potatoes. Read and follow all label instructions of tank mix partners.		
Pumpkin, Squash	Powdery mildew	1.5 to 3 lbs.	1 to 2 paks per 13 acres
	USE INSTRUCTIONS: Begin application when plants are 3 weeks old or when disease symptoms first appear and repeat at 7-day intervals as needed to maintain control. Use the higher rates if disease is heavy or conditions favor such.		
Quince	Fire blight	1 lb.	1 pak per 20 acres
	USE INSTRUCTIONS: Apply at 5-day intervals throughout bloom period.		
Raspberries	Leaf spot, Cane spot, Purple blotch, Anthracnose, Yellow rust, <i>Pseudomonas</i> blight	4 lbs.	1 pak per 5 acres
	USE INSTRUCTIONS: Apply as delayed dormant spray after training in the Spring. Make Fall application after harvest. Add 1 qt. of crop oil per acre.		
	Leaf spot, Cane spot, Purple blotch, Anthracnose, Yellow rust	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Apply when leaf buds begin to open and repeat when flower buds show white. Add one quart of crop oil per acre. Note: Crop injury may occur if applied to foliage under certain conditions such as hot or prolonged moist periods. Discontinue application if signs of crop injury appear.		
Rice (Except CA)	False smut and Panicle blight	1 to 3 lbs.	1 to 3 paks per 20 acres
	USE INSTRUCTIONS: Begin applications at late boot stage and repeat at 7- to 10-day intervals or as needed until 100% heading. Use higher rate and shorter spray interval when disease pressure is high or environmental conditions are favorable for disease development. DO NOT drain the field for at least 14 days after last application.		
Spinach	Anthracnose, Blue mold, Cercospora leaf spot, White rust	2 to 3 lbs.	2 to 3 paks per 20 acres
	USE INSTRUCTIONS: Begin applications when disease first appears or conditions favor disease development. Repeat at 7- to 10-day intervals as needed. Note: Flecking may occur on Spinach leaves.		
Strawberries	Leaf spot, Leaf blight	2 to 3 lbs.	2 to 3 paks per 20 acres
	USE INSTRUCTIONS: Begin application when plants are established and continue on a weekly schedule throughout the season. Apply in at least 20 gallons of water. Use the higher rates when conditions favor disease. Note: Discontinue application if signs of crop injury appear.		
Sugar apple (Annona)	Anthracnose	12 lbs.	3 paks per 5 acres
	USE INSTRUCTIONS: 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	2 to 5 lbs.	2 to 5 paks per 20 acres
	USE INSTRUCTIONS: Begin application when conditions first favor disease development and repeat at 10- to 14-day intervals as needed. Use the higher rate when disease is severe. Addition of Surf-Ac® 820 or a suitable agricultural oil is recommended.		
Tomatoes	Early blight, Late blight	2 to 3 lbs.	2 to 3 paks per 20 acres
	USE INSTRUCTIONS: Begin when disease first threatens and repeat at 7- to 10-day intervals or as needed, depending on disease severity. Use higher rate for severe disease.		
	Bacterial speck	2 lbs.	1 pak per 10 acres
USE INSTRUCTIONS: Begin application when disease first threatens and repeat at 10- to 30-day intervals or as needed depending on severity.			
	Bacterial spot, Anthracnose, Gray leaf mold, Septoria leaf spot	2 to 4 lbs.	1 to 2 paks per 10 acres
	USE INSTRUCTIONS: Begin application when disease first threatens and repeat at 7- to 10-day intervals, or as needed depending on disease severity. Use higher rate for severe disease.		

(Continued)

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Walnuts	Walnut blight	8 to 12.5 lbs.	2 to 3 paks per 5 acres
	<p>USE INSTRUCTIONS: Apply first application spray at early pre-bloom prior to when catkins are partially expanded. Make additional applications during bloom and early nutlet stage or as needed when free moisture occurs. Thorough coverage of catkins, leaves and nutlets is essential for effective control. When applied as a dilute spray, 1 pint of Summer oil emulsion may be added per 100 gallons of spray.</p> <p>Note: Adequate control may not be obtained when copper tolerant species of Xanthomonas bacteria are present.</p>		
Watercress	Cercospora leaf spot	2 lbs.	1 pak per 20 acres
	<p>USE INSTRUCTIONS: Begin applications 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.</p>		
Watermelon	Anthracnose, Bacterial fruit blotch (suppression), Downy mildew	1.5 to 2 lbs.	3 to 4 paks per 40 acres
	<p>USE INSTRUCTIONS: Apply as soon as plants become established in the field and repeat at weekly intervals as needed, depending upon disease severity. Use higher rates when conditions favor disease.</p>		
Wheat, Barley, Oats	Septoria leaf blotch, Helminthosporium spot blotch	1.5 to 2 lbs.	3 to 4 paks per 40 acres
	<p>USE INSTRUCTIONS: Make first application at early heading and follow with a second spray 10 days later. Use the higher rates when conditions favor disease.</p>		

CITRUS

Disease	Rate per Acre	Number of Water-Soluble Paks
Melanose, Scab, Algal spot	4 to 12 lbs.	1 to 3 paks per 5 acres
	<p>USE INSTRUCTIONS: Apply as pre-bloom and post-bloom sprays.</p>	
Greasy spot, Pink pitting	2 to 6 lbs.	1 to 3 paks per 10 acres
	<p>USE INSTRUCTIONS: Apply in Summer on expanded new flush. Repeat on subsequent flushes where disease pressure is severe. Use higher rates when conditions favor disease.</p>	
Alternaria	8 to 10 lbs.	4 to 5 paks per 10 acres
	<p>USE INSTRUCTIONS: On susceptible varieties apply when the first Spring flush appears and each flush thereafter. Application to the fruit should start after two-thirds of the petals have fallen and be repeated on a 21 day schedule.</p>	
Phytophthora brown rot, Septoria spot	4 to 8 lbs.	1 to 2 paks per 5 acres
	<p>USE INSTRUCTIONS: Begin application in Fall and continue as needed. Apply to entire tree. Apply also to bare ground 1 ft. beyond skirt. Make foliar applications to protect developing fruit in orchards with previous disease history or when conditions favor disease development. Use higher rates when conditions favor disease.</p> <p>Note: In CA, in areas subject to copper injury, add 0.33 to 1 lb. of high quality lime per lb. of this product.</p>	
Citrus canker (suppression only)	12 lbs.	3 paks per 5 acres
	<p>USE INSTRUCTIONS: Spray flushes 7-14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications will be dependent on disease pressure. Under heavy disease pressure, each flush of new growth should be sprayed.</p>	
Phytophthora foot rot	1 lb.	1 pak per 20 acres
	<p>USE INSTRUCTIONS: Mix with 1 gal. of water and paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prior to Summer rains and/or in the Fall prior to wrapping trees for freeze protection. Treatment serves for protection up to one year, but does not cure existing infections.</p>	
<p>Note: Adding foliar nutritionals to spray mixtures containing this product or other products and applying to Citrus during the post bloom period when young fruit is present may result in spray burn. Do not use this product on Citrus seedlings grown in greenhouses or shadehouses.</p>		

CITRUS (Field Nursery Gr...)

To control Melanose, Scab, Pink pitting, Greasy spot, Brown rot and for Citrus canker (suppression), apply 2.0 pounds of this product per 100 gallons of water (4 to 8 lbs./acre) (1 to 2 paks per 5 acres). Apply this product at 28-day intervals or as needed depending on disease severity.

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GREENHOUSE AND SHADEHOUSE CROPS

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

Apply this product according to specific rates given for these crops in pounds per acre or pounds per 100 gallons. One level tablespoon of this product per 1,000 square feet is equivalent to 1 pound per acre. One-half tablespoon of this product per gallon of water is equivalent to 1 pound per 100 gallons. 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 as needed; use shorter interval during periods when severe disease conditions persist.

GREENHOUSE AND SHADEHOUSE CROPS		
Crop	Disease	Rate (TBSP / 1,000 SQ. FT.)
Eggplant	Alternaria blight, Anthracnose, Phomopsis	2
	<p>USE INSTRUCTIONS: Begin applications prior to development of disease symptoms. Repeat sprays at 7- to 10-day intervals or as needed depending on disease pressure.</p>	
Pepper	Bacterial spot	2 to 3
	<p>USE INSTRUCTIONS: Begin applications when conditions first favor disease development and repeat at 5- to 10-day intervals as needed depending on disease severity. Use higher rates for severe disease.</p>	
Cucumber	Angular leaf spot, Downy mildew	1.5 to 2
	<p>USE INSTRUCTIONS: Apply weekly when plants begin to vine.</p>	
Tomato	Early blight, Late blight	2 to 3
	<p>USE INSTRUCTIONS: Begin when disease first threatens and repeat at 7- to 10-day intervals or as needed depending on disease severity. Use higher rate for severe disease.</p>	
	Bacterial speck	2
	<p>USE INSTRUCTIONS: Begin applications when disease first threatens and repeat at 7- to 10-day intervals or as needed depending on disease severity.</p>	
	Bacterial spot, Anthracnose, Gray leaf mold, Septoria leaf spot	2 to 4
<p>USE INSTRUCTIONS: Begin when disease first threatens and repeat at 7- to 10-day intervals or as needed depending on disease severity. Use higher rate for severe disease.</p>		

ORNAMENTALS

Notice to User: Plant sensitivities to copper hydroxide 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 pound of this product per 100 gallons of water. Begin application at first sign of disease and repeat at 7- to 14-day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist. One level teaspoon of this product per gallon of water is equivalent to one pound per 100 gallons. This product may be used as a maintenance spray. This product may be used as a maintenance spray alone or in combination with other fungicides such as dithiocarbarnates.

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Ornamentals	Disease
Althea (Rose of Sharon)	Bacterial leaf spot
Aralia	Alternaria, Bacterial fruit blotch (suppression), Cercospora leafspot, Downy mildew, Xanthomonas leafspot
Arborvitae	Alternaria twig blight, Cercospora leaf blight
Azalea*	Botrytis blight, Cercospora leaf spot, Phytophthora dieback, Powdery mildew
Begonia	Bacterial leaf spot (<i>Xanthomonas sp.</i> , <i>Erwinia sp.</i> , <i>Pseudomonas sp.</i>)
Bougainvillea	Anthracoze, Bacterial leaf spot
Bulbs, (Tulip, Gladiolus)	Anthracoze, Botrytis blight
Camellia	Anthracoze, Bacterial leaf spot
Camphor tree	Pseudomonas leaf spot
Canna	Pseudomonas leaf spot
Carnation*	Alternaria blight, Botrytis blight, Pseudomonas leaf spot
Chinese tallow tree	Bacterial leaf spot (<i>Xanthomonas sp.</i> , <i>Pseudomonas sp.</i>)
Chrysanthemum*	Botrytis blight, Septoria leaf spot
Cotoneaster	Botrytis blight
Dahlia	Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot
Date palm	Pestalotia leaf spot
Dianthus	Bacterial spot, Bacterial soft rot
Dogwood	Anthracoze
Dusty miller	Bacterial leaf spot (<i>Pseudomonas cichorii</i>)
Easter lily**	Botrytis blight
Echinacea	Bacterial leaf spot (<i>Pseudomonas cichorii</i>)
Elm "Drake"	Xanthomonas leaf spot
Euonymus	Anthracoze, Botrytis blight
European fan palm	Pestalotia leaf spot
Gardenia	Alternaria leaf spot, Botrytis bud rot, Cercospora leaf spot
Geranium	Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot
Gladiolus	Alternaria leaf spot, Botrytis gray mold, Bacterial leaf blight
Golden rain tree	Bacterial leaf spot
Hibiscus	Bacterial leaf spot
Holly fern	Pseudomonas leaf spot
Impatiens	Bacterial leaf spot
Indian hawthorn***	Anthracoze, Entomosporium leaf spot
Ivy (English, Algerian)*	Xanthomonas leaf spot
Ixora	Xanthomonas leaf spot
Juniper (Easter red cedar)	Anthracoze
Lantana	Bacterial leaf spot
Lilac	Cercospora leaf spot
Loblolly bay	Anthracoze
Loquat	<i>Entomosporium maculata</i> , <i>Colletotrichum sp.</i>
Magnolia (Southern)	Algal leaf spot, Anthracoze, Bacterial leaf spot
Magnolia (Sweet bay)	Anthracoze
Magnolia	Bacterial leaf spot
Mandevillas	Anthracoze
Marigold	Alternaria leaf spot, Botrytis leaf and flower rot, Cercospora leaf spot
Mulberry, weeping	Bacterial leaf spot
Oak, laurel	Algal leaf spot (<i>Cephaleuros virescens</i>)
Oleander	Bacterial leaf spot, Fungal leaf spot
Pachysandra	Volutella leaf blight
Pansy	Downy mildew
Pear (Flowering)	Fireblight, Leaf spot

(Continued)

Ornamentals	Disease
Pentas (Egyptian star)	Bacterial leaf spot (<i>Xanthomonas sp.</i>)
Peony	Botrytis blight
Periwinkle	Phomopsis stem blight
Philodendron	Bacterial leaf spot
Phlox	Alternaria leaf spot
Photinia (Red top, Red leaf)	Anthracoze, <i>Entomosporium</i>
Pistachio	Anthracoze
Plantain lily	Bacterial leaf spot
Powder puff plant	Bacterial leaf spot
Pyracantha	Fireblight, Scab
Queen palm	Exosporium leaf spot, Phytophthora bud rot
Rhododendron	Alternaria flower spot
Rose*	Black spot, Powdery mildew
Verbena	Xanthomonas leaf spot
Viburnum	Anthracoze
Washingtonia palm	Pestalotia leaf spot
Weeping willow	Anthracoze
Yucca (Adam's needle)	Cercospora leafspot, Septoria leafspot

* 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.
 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.
 ** For Easter lily, use 3 to 5 lbs. per acre in 20 to 100 gallons water.
 *** For Indian hawthorn, use 2 to 4 lbs. per 100 gallons.

ORNAMENTAL TREES

Crop	Disease	Rate per Acre	Number of Water-Soluble Paks
Douglas fir	Rhabdocline needlecast	2 lbs.	1 pak per 10 acres
	USE INSTRUCTIONS: Begin applications at bud break and repeat at 3- to 4-week intervals. Apply in a tank mix another registered pesticide if moderate to severe disease pressure is present.		
Live oak	Ball moss	6 lbs.	1 pak per 3 acres
	USE INSTRUCTIONS: Apply in 100 gallons of water in the Spring when Ball moss is actively growing using 1.5 gals. of spray per ft. of tree height. Make sure to wet ball moss tufts thoroughly. A second application may be required after 12 months. Note: This product may be injurious to ornamentals grown under Live oaks. This product may be reactive on metal and masonry surfaces. Do not spray on cars, houses, lawn furnitures, etc.		
Sycamore	Anthracoze	2 to 3 lbs.	2 to 3 paks per 20 acres
	USE INSTRUCTIONS: Apply as a full spray coverage. Apply in 100 gals. of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 to 10 days later at 10% expansion.		

TURFGRASS

Crop	Disease	Rate per Acre
Turfgrass	Algae	see USE INSTRUCTIONS
	USE INSTRUCTIONS: Apply 1.5 lbs. 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. Observe all precautions and limitations on the label of each product used in tank mixes. Note: Phytotoxicity may occur depending on varietal differences. Apply the recommended rate to a small area and observe 7 to 10 days for phytotoxicity. If phytotoxicity occurs, discontinue use. Do not apply in spray solutions with a pH of less than 6.5.	

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

WATER-SOLUBLE PAKS: Carefully open outer bag. Never open the water-soluble pouch.

CONTAINER DISPOSAL: Nonrefillable Container (flexible-bag-all weights): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. 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-fifty lbs. or less): 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 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-greater than fifty lbs.): 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 rinsate 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 Container: 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 percent 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.

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 AND 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.

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