

45002-4

11-29-2001

1/25



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

NOV 29 2001

Cuproquim Corporation  
c/o Alice Walker Consulting  
811 Country Club Dr.  
Senatobia, MS 38668

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Subject: Blue Shield DF, EPA Reg. No. 45002-4. Amendment to First Aid statements as per PR Notice 2001-1. Your application dated September 24, 2001.

Dear Dr. Walker:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable provided the following changes are made:

1. In the Agricultural Use Requirements box revise the first sentence in paragraph two (2) to read, "Do not enter or allow.....of 24 hours without required PPE."

Add the following sentence after the sentence above, "The following equipment and precautions must be followed for 7 days following the application of the product."

Revise the last sentence in this paragraph to read, "Notify worker of .....flush eyes using the eye flush container."

Please make the changes listed above before you release the product for shipment.

Submit one (1) copy of your final printed label before releasing the product for shipment. If the conditions are not complied with, the registration will be subjected to cancellation in accordance with FIFRA Section 6 (e). Your release for shipment of the product bearing the amended labeling constitute acceptance of these conditions.

A stamped copy of the label is enclosed.

If you have any questions about this letter, please contact Tara Chand-Goyal at (703) 308-8257.

Sincerely yours,

(S)

Cynthia L. Giles-Parker  
Product Manager (22)  
Fungicide Branch  
Registration Division (7505C)

Attachment: Label stamped "ACCEPTED with COMMENTS"

2/25

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:

NOV 29 2001

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.

45002-4

**CUPROQUIM**  
**BLUE SHIELD® DF**  
**FUNGICIDE/BACTERICIDE**

10 101

**ACTIVE INGREDIENT:**

Cupric Hydroxide\*..... 77.0%

**INERT INGREDIENTS:**..... 23.0%

**TOTAL** ..... 100.0%

\*(Metallic copper equivalent 50%)

\*CAS No. 20427-59-2

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER - PELIGRO**

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

**FIRST AID**

- |                        |  |
|------------------------|--|
| If in eyes             | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li></ul>   |
| If inhaled             | <ul style="list-style-type: none"><li>• Call a poison control center or doctor for treatment advice.</li><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li></ul>   |
| If swallowed           | <ul style="list-style-type: none"><li>• Call a poison control center or doctor for further treatment advice.</li><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li></ul> |
| If on skin or clothing | <ul style="list-style-type: none"><li>• Do not give anything by mouth to an unconscious person.</li><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>  |

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

See additional precautions on side or back panel.

Manufactured for:  
**CUPROQUIM CORPORATION**  
P. O. Box 1868  
Collierville, TN 38027-1868

**EPA Reg. No. 45002-4**  
**EPA Est. No. 45002-MEX-2**  
**PRODUCT OF MEXICO**

**NET CONTENTS** \_\_\_\_ **LBS** \_\_\_\_ **KG**

**PRECAUTIONARY STATEMENTS  
DANGER  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Corrosive. Causes irreversible eye damage. May cause skin sensitization reactions in certain individuals. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin.

**PERSONAL PROTECTIVE EQUIPMENT**

Some materials that are chemical-resistant to this product are any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category 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, and protective eyewear.

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, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

Users should: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove personal protective equipment 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. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. 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 eyes using the eye-flush.

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

### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food or feed by storage or disposal.

**STORAGE:** Store in a cool, secure, dry area in original container.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### GENERAL INSTRUCTIONS

Blue Shield DF may be applied by air, or by dilute or concentrated ground sprayers, or chemigation on crops and at rates given on this label unless specifically prohibited for that crop use. When selecting a use rate for Blue Shield DF, do not apply less than the label recommended minimum amount. Under heavy disease pressure or when conditions favor such, use the higher rate and shorter spray intervals specified for each crop. Use the higher rates for large mature tree crops. The per acre use rate is applicable for both dilute and concentrate spraying.

Sufficient spray volume and spray pressure are essential to thoroughly penetrate the plant canopy and give thorough spray coverage. On crops sensitive to copper fungicides, use higher volumes of spray water per acre. When making a concentrate or aerial application without specific previous experience, it is advisable to test for crop tolerance prior to full scale use.

While volume is important in obtaining full spray coverage, other factors such as foliage density, environmental conditions and spray calibrations, have a greater impact. Always be sure that sprayers are calibrated to spray equipment manufacturer's specifications and environmental conditions are within those recommended by State and local regulatory authorities.

When using adjuvants or other pesticides in combination with this product, always observe the precautionary statements on the product's label and required days before harvest. Sprays of Blue Shield DF may be applied up to 24 hours preharvest due to REI for Worker Protection Standard. Before mixing with other products in spray tank, be sure that products are compatible. If compatibility is in question, use the compatibility jar test before mixing a whole tank.

Blue Shield DF should not be applied in spray water having a pH of less than 6.5 as phytotoxicity may result. Use a buffering agent to increase the pH to 6.5-7.0 if the water source is below 6.5. Also avoid using water having a pH of greater than 9.0 as effectiveness may be reduced. Environmental conditions such as extended periods of wet weather, acid rain, etc. which alter the pH of the leaf surface may affect the performance of Blue Shield DF resulting in possible phytotoxicity or loss of effectiveness.

Agricultural chemicals may perform in an unpredictable manner when tank mixed, especially where several products are involved. Reduced effect on pests or crop injury may occur. Unless recommended on this label or by a state/local expert, it is advisable to test for compatibility and tolerance to crop injury prior to full scale commercial utilization of a new tank mix or tank mixing should not be undertaken.

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

## MIXING INSTRUCTIONS FOR SPRAY APPLICATION

Fill the spray tank three-fourths to four-fifths full with clean water. Start agitation (NOTE: Proper agitation creates a rippling or rolling action on the liquid surface). Add Blue Shield DF at the recommended rate.

Mix thoroughly and then add enough water to fill spray tank. Maintain sufficient agitation during mixing and during application of sprays to ensure a uniform spray mixture. When tank mixing with other products, follow the mixing sequence below: (1) micronutrients and fertilizers, (2) wettable powders, dry flowables, and water dispersible granules, (3) liquid flowables, (4) emulsifiable concentrates, and (5) adjuvants. Before adding a second pesticide, be sure that the prior product is well mixed and suspended before adding the next ingredient.

## MINIMUM RECOMMENDED SPRAY VOLUME IN GALLONS PER ACRE (GPA)

A full dilute spray on tree crops means the maximum amount of spray when uniformly applied that an acre of such trees will hold to the point that excess spray begins to drip off. Thus the dilute spray volume per acre will depend on tree size and leaf surface per acre. The following listed dilute spray volumes is the volume that will generally provide such coverage on average size full-leaved trees. A concentrate spray is a spray applied in less volume than dilute. The extent of the concentration varies by equipment used. Thus the following spray volumes for a concentrated spray are the minimum volumes recommended per acre.

Use Blue Shield DF as noted below unless indicated otherwise in the specific crop directions. Blue Shield DF is adaptable to spraying from aircraft and ground spraying equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. Refer to recommended volumes below:

	Aerial	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 FL)**

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

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

## GENERAL CHEMIGATION INSTRUCTIONS

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

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

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

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

## SAFETY DEVICES

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

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

### **SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

Public water 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 no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

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

### **POSTING INSTRUCTIONS**

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

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. This sign is in addition to any sign posted to comply with the Worker Protection Standard. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in



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

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

### CROPS

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

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

CROP	DISEASE	RATE LBS/ ACRE	COMMENTS
Alfalfa	Cercospora & Leptosphaerulina Leaf Spots	2	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 - 12	Dormant application: Apply before foliage buds begin to swell. Use higher rates when rainfall is heavy and disease pressure is high.

		6 - 8	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.
	Bacterial Blast (Pseudomonas)	12 - 16	Apply at dormant to early pink bud. For control in sprinkler irrigated orchards or where disease is severe, apply 1 lb. per acre at 2 week postbloom intervals or just before sprinkling. NOTE: Injury may occur from postbloom sprays, especially on Neplus varieties.
Apples	Anthracnose, Pseudomonas, European Canker	12 - 16	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 - 16	Make application between silvertip and green-tip. Apply as a full cover spray. NOTE: Crop injury may occur from late application. Discortinue use when green tip reaches ½ inch.
	Crown or Collar Rot	4	Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in late fall after harvest. NOTE: Do not use if soil pH is below 5.5 since copper toxicity may result.
Apricots	Coryneum Blight (Shot Hole), Blossom Brown Rot	8 - 12	Apply at popcorn to full boom and use higher rate when conditions favor disease. NOTE: Applications applied after bloom will result in crop injury.
Atemoya (Not for use in CA)	Anthracnose	3	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 - 12	Apply when bloom buds begin to swell and continue applications at monthly intervals for 5 to 6 applications. Use higher rate when conditions favor disease.
Bananas	Sigatoka	2	Apply by air in 3-10 gallons of water containing 0.5 gallon agricultural oil. Apply on a 14-day schedule throughout the wet season. Apply at 21-day intervals during dry periods.
	Black Pitting	4	Apply in 100 gallons of water (4 pounds 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 - 3	Use the higher rate for more severe disease. For protective sprays, make first application when plants six inches high. Repeat on a 7-14 day schedule depending on local conditions.
Blackberries (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chalems, and Thornless Evergreens)	Leaf & Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, Pseudomonas Blight	4	Make fall application after harvest. Apply delayed dormant spray after pruning/training in spring. Add 1 quart of crop oil per acre.
	Leaf and Cane Spot, Purple Blotch, Anthracnose, Yellow Rust	2	Apply when leaf buds begin to open and repeat when flower buds show white. Add 1 quart of crop oil per acre. 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 (Not for use in CA)	Bacterial canker	6	Make first application before fall rains and second application four weeks later.
Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Greens (Beet, Collard, Mustard, and Turnip)	Black Rot (Xanthomonas), Black Leaf Spot (Alternaria), Downy Mil-dew (Peronospora)	1 - 2	Apply at 7 to 10 day intervals. 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. Use higher rate 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 - 8.5	Begin applications at the start of the rainy season and continue while infection conditions persist. Apply 2 to 4.5 pounds 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 pounds per acre according to disease incidence and planting density.

Cantaloupe, Honeydew, Muskmelon	Downy Mildew	2	Begin application when conditions are favorable for disease development and repeat at 5 to 7 day intervals as needed depending on disease severity.
Carambola (Not for use in CA)	Anthrachnose	6	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	Begin applications when disease first threatens and repeat at 7 to 14 day intervals as needed depending on disease severity.
Celery, Celeriac (Celer-iac not for use in CA)	Cercospora Early Blight, Septoria Late Blight, Bacterial Blight	2	Begin applications as soon as plants are first established in the field, repeating at 5 to 7 day intervals depending on severity and environmental conditions.
Cherry	Dead Bud (Pseudomonas syringae), Coryneum Blight	8 - 12	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 pint of superior type oil per 100 gallons of water as a dilute spray.
	Brown Rot Blossom Blight	8 - 12	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.
Chives (Not for use in CA)	Downy Mildew	2	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.
Citrus (Adding foliar nutritionals to spray mixtures containing Blue Shield DF or other products and applying to citrus during the post-bloom period when young fruit is	Melanose, Scab, Algal Spot	4 - 12	Apply as a pre-bloom and post-bloom spray.
	Greasy Spot, Pink Pitting	2 - 6	Apply in summer on expanded new flush. Repeat on subsequent flushes where disease pressure is severe. Use higher rates when conditions favor disease.
	Alternaria Brown Spot (suppression only)	8 - 10	On susceptible varieties, apply when the first spring flush appears and each flush thereafter. Application to the fruit should start after 2/3's of the petals have fallen and be repeated on a 21 day schedule.
	Phytophthora	4 - 8	Begin applications in fall and continue as

present may result in spray burn. Do not use Blue Shield DF on citrus seedlings grown in green-houses or shadehouses.)	Brown Rot, Septoria Spot		needed. Apply to entire tree. Apply also to bare ground one foot 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. NOTE: In California, in areas subject to copper injury, add 1/3 to 1 lb. of high quality lime per pound of this product.
	Citrus Canker (suppression only)	12	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.
	Phytophthora Foot Rot	1	Mix with 1 gallon 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 as protection for up to one year, but does not cure existing infections.
Coffee	Iron Spot ( <i>Cercospora coffeicola</i> ), Pink Disease ( <i>Corticium salmonicolor</i> )	2	Use concentrate or dilute spray. Begin treatment at start of wet season and continue at monthly intervals for three applications.
	Coffee Berry Disease ( <i>Collectotrichum coffeanum</i> )	6 - 8	Apply first spray after flowering and before onset of long rains and then at 21 to 28 day intervals until picking. Use higher rates and shorter intervals when rainfall is heavy and disease pressure is high.
	Bacterial Blight ( <i>Pseudomonas syringae</i> )	6 - 8	Begin spray program before 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(s), especially when coinciding with wet weather. Use higher rates and shorter intervals when rainfall is heavy and disease pressure is high.
	Leaf Rust ( <i>Hemileia vastatrix</i> )	2 - 4	Apply before the onset of rains and then at 21 day intervals while the rains continue. Use

			higher rates when rainfall is heavy and disease pressure is high.
Cranberry	Fruit Rot	8	Make first application in late bloom. One or two additional applications at 10-14 day intervals may be required depending upon disease severity.
	Rose Bloom	8	Apply three sprays on 10-14 days schedule as soon as symptoms are observed.
	Bacterial stem canker	8	Apply postharvest and again in spring before bud burst. One or two additional applications at 10 to 14 day intervals may be required depending upon disease severity.
	Tip Blight (Monolinia), Stem and Leaf Blight, Red Leaf Spot	8	Apply delayed dormant spray in the spring. Repeat at 10-14 day intervals as needed through prebloom.
Cucumber	Angular Leaf Spot, Downy Mildew	1.5 - 2	Apply weekly when plants begin to vine.
Currants, Gooseberry	Anthrachnose, Leaf Spot	10	Make initial application after first leaves have expanded. Continue on a 10-14 day schedule during wet conditions in the spring. Make an additional application after harvest.
Dill (Not for use in CA)	Phoma Leaf Spot, Rhizoctonia, Foliage Blight	2 - 3	Begin applications when plants are first established in the field and repeat at 7-10 day intervals depending upon disease severity and environmental conditions. Use higher rates when conditions favor disease.
Douglas Fir (Not for use in CA)	Rhabdocline Needlecast	2	Begin applications at bud break and repeat at 3-4 week intervals. Apply in a tank mix with another registered pesticide if moderate to severe disease pressure is present.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	2	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals or as needed depending on disease severity.
Filbert	Bacterial Blight	16 - 24	Apply as a post-harvest spray. In seasons of heavy rainfall, apply a second spray when three-quarters of leaves have dropped. Add 1 pint of superior-type oil per 100 gallons of water.
	Eastern Filbert Blight	16 - 24	Apply as a dilute spray in adequate water for thorough coverage. Make initial application after harvest in October before heavy winter rains begin. The next application should be made in late February to early March followed by

			another application 1 month later. If desired, add 1 pint of a sticking agent or superior-type oil per 100 gallons of water.
Ginseng	Alternaria Leaf & Stem Blight	2.6	Use as a tank mix with 2 lbs. 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 2-4 year old ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.
Grapes	Black Rot, Powdery Mildew, Downy Mildew, Phomopsis, Leaf Blight	2	Begin applications at late dormant up to bud break with subsequent applications throughout the season depending upon disease severity. NOTE: Foliage injury may occur on copper sensitive varieties such as Concord, Delaware Niagara, and Rosettes. Either test for sensitivity or add 1 to 3 pounds of hydrated lime per pound of Blue Shield DF.
Guava (Not for use in CA)	Anthracoise, Red Algae	3	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	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	Pseudomonas syringae, Erwinia herbicola, Pseudomonas fluorescens	8	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 - 2	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 (Not for use in CA)	Anthrachnose	3	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, Pecan (Florida & Texas)	Ball Moss	6	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: Blue Shield DF 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.
Macadamia Nuts	Anthrachnose	6	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 (P. capsici), Raceme Blight (Botrytis cinerea)	4.5 - 6	Apply during raceme development and bloom periods. Apply in sufficient water for thorough coverage.
Mamey Sapote (Not for use in CA)	Anthrachnose, Algal Leaf Spot	6 - 8	Apply when conditions favor disease development. Repeat on 14-30 day schedule as disease severity and environmental conditions dictate.
Mango (Not for use in CA)	Anthrachnose	8	Apply monthly after fruit set until harvest.
Olives	Peacock Spot, Olive Knot	8 - 12	Make first application before winter rains 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	Begin when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals as needed depending upon disease pressure. Can cause phytotoxicity to leaves.
	Bacterial Blight	1 - 1.5	



Papaya (Not for use in CA)	Anthracnose	4 - 10	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 an approved spreader is desirable.
Parsley (Not for use in CA)	Bacterial Blight (Pseudomonas sp.)	3	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 (Not for use in CA)	Anthracnose	6	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 NOTE: Do not spray later than 3 weeks prior to harvest. Use only recommended rates. Spotting on leaves and defoliation may occur from use in cover sprays.	Leaf Curl, Coryneum Blight (Shot Hole), Bacterial Canker and Blast (Pseudomonas), Bacterial Spot (Xanthomonas)	8 - 16	Apply at leaf fall. Use the highest rates per acre when rainfall is very heavy and disease pressure is high. May be used with agricultural spray oil.
	Brown Rot Blossom Blight	8 - 12	Apply as a full cover spray at pink bud. (Application at this time affords some control of Leaf Curl and Coryneum Blight).
	Bacterial Spot	1	Make postbloom applications at first and second cover sprays.
		8	Apply as a dormant spray.
Peanuts	Cercospora Leaf Spot	1.5 - 3	Begin spraying 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 conditions favor disease. NOTE: The use of one to two quarts of Sulfur 6L per acre may be added.
Pears	Fire Blight	1	Apply at 5 day intervals throughout bloom period.
	Blossom Blast (Pseudomonas Blight)	12 - 16	Apply before fall rains and again during dormancy before spring growth begins. Use the higher rate when disease pressure is high or when conditions favor development of such. NOTE: May cause fruit russet on copper-

			sensitive varieties.
Peas	Powdery Mildew	1.5 - 3	Begin applications when disease symptoms first appear and repeat at weekly intervals as needed. Use higher rate for more severe disease.
Pecans	Shuck and Kernel Rot (Phytophthora cactorum), Zonate Leaf Spot (Cristulariella pyramidalis)	2 - 4	For suppression, apply in sufficient water to ensure complete spray coverage at 2-4 week intervals starting at kernel growth and continuing until shucks open. Use the higher rate and shorter intervals if frequent rainfall occurs.
	Mosses, Alga, Lichen	6	Mix with spreader-sticker on a dilute spray basis and apply in dormant season before buds swell, thoroughly wetting limbs and mosses.
Peppers	Bacterial Spot	2 - 3	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 (Not for use in CA)	Botrytis Blight, Botryosphaeria Panicle, Shoot Blight, Septoria Leaf Blight, Late Blight (Alternaria alternata)	4 - 8	Make initial application at bud swell and repeat on a 14-28 day schedule as dictated by disease conditions. If disease conditions are severe, use the high rate and short spray interval.
Plums, Prunes	Coryneum Blight (Shot Hole)	8 - 16	Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.
	Brown Rot Blossom Blight	8 - 12	Apply full cover application at pink, red or early white bud stage. Use the higher rate when disease pressure is heavy or conditions favor disease development.
Potatoes	Early & Late Blight	1 - 4	Apply 1 to 1.5 pounds at 7 to 10 day intervals starting when plants are 6 inches high until 2 weeks before harvest in locations where disease is light and up to 3 to 4 pounds per acre where disease is more severe. Under conditions of severe disease, control with Blue Shield DF will be improved by tank mixing with other compatible fungicides registered for use on potatoes. Read and follow all label instructions of tank mix partners.
Pumpkins, Squash	Powdery Mildew	1.5 - 3	Begin applications 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 disease development.
Quince (Not for use in CA)	Fire Blight	1	Apply at 5 day intervals throughout bloom period.
Raspberry (Not for use in CA)	Leaf & Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, Pseudomonas Blight	4	Apply delayed dormant spray after training in the spring. Make fall application after harvest. Add 1 qt. of crop oil per acre.
	Leaf & Cane Spot, Purple Blotch, Anthracnose, Yellow Rust	2	Apply when leaf buds begin to open and repeat when flower buds show white. Add 1 quart of crop oil per acre. 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, & White Rust	2 - 3	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 - 3	Begin applications 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 applications if signs of phytotoxicity appear.
Sugar Apple (Annona) (Not for use in CA)	Anthracnose	12	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 (Table beets not for use in CA)	Cercospora Leaf Spot	2 - 5	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals as needed. Use the higher rate when disease is severe. Addition of suitable agricultural spray oil is recommended.
Sycamore	Anthracnose	2 - 3	Apply as a full cover spray. Apply in 100 gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 - 10 days later at 10% leaf expansion.
Tomatoes	Early Blight, Late Blight	2 - 3	Begin when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity. Use higher rate for severe

			disease.
	Bacterial Speck	2	Begin when disease first threatens and repeat at 10 to 30 day intervals or as needed depending on disease severity.
	Bacterial Spot, Anthracnose, Gray Leaf Mold, Septoria Leaf Spot	2 - 4	Begin when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity. Use higher rate for severe disease.
Turfgrass	Algae	See comment	Apply 1.5 lbs. per 1,000 sq. ft. in 5 gals. 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 7-10 days for phytotoxicity. If phytotoxicity occurs, discontinue use. Do not apply in spray solutions with a pH of less than 6.5.
Walnuts	Walnut Blight	8 - 12.5	Apply first spray at early pre-bloom prior to or 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. NOTE: Adequate control may not be obtained when copper tolerant species of Xanthomonas bacteria are present.
Watercress (Not for use in CA)	Cercospora Leaf Spot	2	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.
Watermelon	Anthracnose, Bacterial Fruit Blotch (suppression), Downy Mildew	1.5 - 2	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.

Wheat, Oats, Barley	Septoria Leaf Blotch, Helmin- thosporium Spot Blotch	1.5 - 2	Make first application at early heading and follow with second application 10 days later. Use the higher rates when conditions favor disease.
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### CITRUS

#### Field Nursery Grown

To control melanose, scab, pink pitting, greasy spot, brown rot and for citrus canker (suppression), apply 2 pounds Blue Shield DF per 100 gallons of water (4-8 lbs./acre). Apply Blue Shield DF at 28 day intervals or as needed depending on disease severity.

### GREENHOUSE AND SHADEHOUSE CROPS

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

Apply Blue Shield DF according to specific rates given for these crops in pounds per acre or pounds per 100 gallons. One level tablespoon of Blue Shield DF per 1,000 square feet is equivalent to 1 pound per acre. One half tablespoon of Blue Shield DF per gallon of water is equivalent to 1 pound per 100 gallons. Blue Shield DF should be applied in adequate water for thorough coverage of plant parts. Begin application at first sign of disease and repeat at 7 to 14 day intervals as needed; use shorter interval during periods when severe disease conditions persist.

CROP	DISEASE	RATE TBSP./ 1,000 SQ. FT.	COMMENTS
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	2 Tbsp.	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals or as needed depending on disease pressure dictates.

Pepper	Bacterial Spot	2 - 3 Tbsp.	Begin applications when conditions first favor disease development and repeat at 5 to 10 day intervals as needed depending on disease severity. Use higher rates for severe disease.
Cucumber	Angular Leaf Spot, Downy Mildew	1.5 - 2 Tbsp.	Apply weekly when plants begin to vine.
Tomato	Early blight, Late Blight	2 - 3 Tbsp.	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 Tbsp.	Begin applications when disease first threatens and repeat at 7 to 10 day intervals or as needed depending on disease severity.
	Bacterial Spot, Anthracnose, Gray Leaf Mold, Septoria Leaf Spot	2 - 4 Tbsp.	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.

### ORNAMENTALS

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

Use Blue Shield DF on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, for professional use on ornamentals grown for indoor and outdoor landscaping, and for control of bacterial and fungal diseases of foliage, flowers and stems. One-half tablespoon of Blue Shield DF per gallon of water is equivalent to 1 pound per 100 gallons.

Apply as a thorough coverage spray using 1 lb. Blue Shield DF per 100 gallons of water. Begin applications at first sign of disease and repeat at 7-14 day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist.

Blue Shield DF may be used as a maintenance spray alone or in combination with other fungicides such as the dithiocarbamates.

CROP	LATIN NAME	DISEASE
Althea (Rose of Sharon)†	<i>Hibiscus syriacus</i>	Bacterial Leaf Spot
Aralia	<i>Dizygotheca elegantissima</i>	Xanthomonas & Cercospora Leaf Spots, Alternaria
Aborvitae†	<i>Thuja sp.</i>	Alternaria Twig blight, Cercospora Leaf Blight
Azalea*	<i>Rhododendron sp</i>	Cercospora Leaf Spot, Botrytis Blight, Phytophthora Dieback & Powdery Mildew
Begonia	<i>Begonia semperflorens</i>	Bacterial Leaf Spot (Xanthomonas sp., Erwinia sp., Pseudomonas sp.)
Bougainvillea†	<i>Bougainvillea spectabilis</i>	Anthracnose, Bacterial Leaf Spot
Bulbs (Tulip, Gladiolus)	<i>Miscellaneous</i>	Anthracnose, Botrytis Blight
Camellia†	<i>Camellia japonica</i> , <i>C. sasangua</i>	Anthracnose, Bacterial Leaf Spot
Camphor Tree†	<i>Cinnamomum camphora</i>	Pseudomonas Leaf Spot
Canna†	<i>Canna sp.</i>	Pseudomonas Leaf Spot
Carnation*	<i>Dianthus sp.</i>	Alternaria Blight, Pseudomonas Leaf Spot, Botrytis Blight
Chinese Tallow Tree†	<i>Sapium sebiferum</i>	Bacterial Leaf Spot (Xanthomonas sp., Pseudomonas sp.)
Chrysanthemum*	<i>Chrysanthemum morifolium</i>	Septoria Leaf Spot, Botrytis Blight
Cotoneaster	<i>Cotoneaster sp.</i>	Botrytis blight
Dahlia†	<i>Dahlia pinnata</i>	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Date Palm†	<i>Phoenix canariensis</i>	Pestalotia Leaf Spot
Dianthus†	<i>Dianthus sp.</i>	Bacterial Spot, Bacterial Soft Rot
Dogwood†	<i>Cornus florida</i>	Anthracnose
Dusty Miller†	<i>Senecio cineraria</i>	Bacterial Leaf Spot (Pseudomonas cichorii)
Easter Lily**	<i>Lilium longiflorum</i>	Botrytis Blight
Echinacea†	<i>Echinacea sp.</i>	Bacterial Leaf Spot (Pseudomonas cichorii)
Elm "Drake"†	<i>Ulmus parvifolia</i>	Xanthomonas Leaf Spot
Euonymus	<i>Euonymus sp.</i>	Botrytis Blight, Anthracnose
European Fan Palm†	<i>Champaerops numilis</i>	Pestalotia Leaf Spot
Gardenia†	<i>Gardenia jasminoides</i>	Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf Spot
Geranium†	<i>Pelargonium sp.</i>	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot

CROP	LATIN NAME	DISEASE
Gladiolus	<i>Gladiolus sp.</i>	Alternaria Leaf Spot, Botrytis Gray Mold, Bacterial Leaf Blight
Golden Rain Tree†	<i>Koelreuteria paniculata</i>	Bacterial Leaf Spot
Hibiscus†	<i>Hibiscus rosasinensis</i>	Bacterial Leaf Spot
Holly Fern†	<i>Crytomium falcatum</i>	Pseudomonas Leaf Spot
Impatiens†	<i>Impatiens sallerana</i>	Bacterial Leaf Spot
India Hawthorn***	<i>Raphiolepis indica</i>	Anthracnose, Entomosporium Leaf Spot
Ivy (English, Algerian)*	<i>Hedera helix, H. canariensis</i>	Xanthomonas Leaf Spot
Ixora†	<i>Ixora coccinea</i>	Xanthomonas Leaf Spot
Juniper (Eastern Red Cedar)†	<i>Juniperus virginiana</i>	Anthracnose
Lantana†	<i>Lantana camara</i>	Bacterial Leaf Spot
Lilac†	<i>Syringa sp.</i>	Cercospora Leaf Spot
Loblolly Bay†	<i>Gordonia lasianthus</i>	Anthracnose
Loquat†	<i>Eriobotrya japonica</i>	Entomosporium maculata, Collectotrichum sp.
Magnolia (Southern)†	<i>Magnolia grandiflora</i>	Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot
Magnolia (Sweet Bay)†	<i>Magnolia virginiana</i>	Anthracnose
Magnolia†	<i>Magnolia soulangiana</i>	Bacterial Leaf Spot
Mandevilla†	<i>Mandevilla sp.</i>	Anthracnose
Marigold†	<i>Tagetes sp.</i>	Alternaria Leaf Spot, Botrytis Leaf and Flower Rot, Cercospora Leaf Spot
Mulberry, Weeping†	<i>Morus alba</i>	Bacterial Leaf Spot
Oak, Laurel†	<i>Quercus laurifolia</i>	Algal Leaf Spot ( <i>Cephaleuros virescens</i> )
Oleander†	<i>Nerium oleander</i>	Bacterial Leaf Spot, Fungal Leaf Spot
Pachysandra	<i>Pachysandra procumbens</i>	Volutella Leaf Blight
Pansy†	<i>Viola sp.</i>	Downy Mildew
Pear (Flowering)†	<i>Pyrus calleryana</i>	Fireblight, Leaf Spot
Pentas (Egyptian Star)†	<i>Pentas spp.</i>	Bacterial Leaf Spot ( <i>Xanthomonas sp.</i> )
Peony†	<i>Paeonia spp.</i>	Botrytis Blight
Periwinkle	<i>Catharanthus roseus, Vinca sp.</i>	Phomopsis Stem Blight
Philodendron	<i>Philodendron</i>	Bacterial Leaf Spot



CROP	LATIN NAME	DISEASE
	<i>selloum</i>	
Phlox†	<i>Phlox sp.</i>	Alternaria Leaf Spot
Photinia (Red Top, Red Leaf)†	<i>Photinia fraserii</i> , <i>P. glabra</i>	Anthracnose, Entomosporium
Pistachio†	<i>Pistacia chinensis</i>	Anthracnose
Plantain Lily†	<i>Hosta sp.</i>	Bacterial Leaf Spot
Powder Puff Plant†	<i>Callindra sp.</i>	Bacterial Leaf Spot
Pyracantha	<i>Pyracantha sp.</i>	Fireblight, Scab
Queen Palm†	<i>Arecastrum romanzoffianum</i>	Exosporium Leaf Spot, Phytophthora Bud Rot
Rhododendron†	<i>Rhododendron sp.</i>	Alternaria Flower Spot
Rose*	<i>Rosa sp.</i>	Powdery Mildew, Black Spot
Verbenat†	<i>Verbena sp.</i>	Xanthomonas Leaf Spot
Viburnum†	<i>Viburnum odoratissimum</i> , <i>V. suspensum</i>	Anthracnose
Washingtonia Palm†	<i>Washingtonia robusta</i>	Pestalotia Leaf Spot
Weeping Willow†	<i>Salix babylonica</i>	Anthracnose
Yucca (Adam's Needle)	<i>Yucca sp.</i>	Cercospora, Septoria Leaf Spot

†Not for use in California.

\*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.

\*\*Apply 3-5 lbs. in 20-100 gallons of water per acre.

\*\*\*For India Hawthorn, use 2-4 lbs. per 100 gallons.

**NOTICE:** Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on this label when used in accordance with directions under normal conditions of use; but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions not reasonably foreseeable to seller; the buyer assumes the risk of any such use.

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