

before flowering and repeat on a weekly schedule until just before harvest.

Chives	Downy Mildew	1.0 TBS.	Begin applications when plants are established in the garden. Repeat applications every 7-10 days as dictated by disease conditions. If disease pressure is high, use the shorter spray interval.
Dill	Phoma Leaf Spot, and Rhizoctonia Foliage Blight	1.0 TBS.	Begin applications when plants are first established and repeat at 7 - 10 day intervals depending on disease severity and environmental conditions.
Douglas Fir	Rhabdocline needlecast	2.0 TBS.	Begin applications at bud break and repeat at 3-4 week intervals.
Ginseng	Alternaria Leaf and Stem Blight	2.0 TBS.	Begin applications as soon as plants have emerged in spring.  Applications should be repeated every 7 days until plants become dormant in fall. If schedule 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.

**NOTE:** Alternaria Leaf and Stem Blight is most severe in humid conditions such as those found in the dense canopies of 2, 3, and 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.

Guava	Anthracnose, Red Algae	1.0 TBS.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest.
Litchi	Anthracnose	1.0 TBS.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest.
Pecan, Live Oak	Ball Moss	3.0 TBS.	Apply 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: KOCIDE DF may be injurious to ornamentals grown under Live Oaks. This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.

Macadamia	Anthracnose	2.0 TBS.	Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest.
	Phytophthora Blight ( <u>P.capsici</u> ), Raceme Blight ( <u>Botrytis cinerea</u> )	2.0 TBS.	Apply during raceme development and bloom periods.
Mamey Sapote	Anthracnose, Algal	2.0 TBS.	Apply when conditions favor

## Leaf Spot

disease development. Repeat on 14-30 day schedule as disease severity and environmental conditions dictate.

Papaya	Anthracnose	2.0 TBS.	Begin applications before disease appears and repeat at 10 - 14 day intervals. Apply at 5 - 7 day intervals during periods of heavy rainfall.
Parsley	Bacterial blight ( <u>Pseudomonas</u> sp.)	1.0 TBS.	Begin applications when plants are first established in the field and repeat at 5-7 days intervals depending upon disease severity and environmental conditions.
Passion Fruit	Anthracnose	2.0 TBS.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest.
Sugar Apple ( <u>Annona</u> )	Anthracnose	2.0 TBS.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest.
Sycamore	Anthracnose	2.0 TBS.	Apply as a full cover spray. Apply in 1 gallon 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.

## TURFGRASS

To control algae in turfgrass, apply 1.5 pounds Kocide DF per 1,000 square feet in 5 gallons of water.

**NOTE:** Phytotoxicity may occur depending upon varietal differences. Apply the recommended rate to a small area and observe for 7-10 days for signs of injury. If phytotoxicity occurs, discontinue use. Do not apply in spray solutions with a pH of less than

6.5.

## ORNAMENTALS

**Notice to User:** Plant sensitivities to KOCIDE 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 KOCIDE DF. Neither the manufacturer nor seller has determined whether or not KOCIDE DF can be safely used on ornamental or nursery plants not listed on this label. The user should determine if KOCIDE DF can be used safely prior to widespread 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 widespread use.

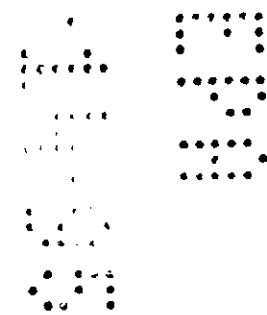
Use KOCIDE DF on container, bench or bed-grown ornamentals grown for indoor and outdoor landscaping, to control bacterial and fungal diseases of foliage, flowers and stems.

**Use one-half tablespoon of KOCIDE DF per gallon of water (equivalent to 1 pound per 100 gallons).**

Apply a thorough coverage spray. Begin application 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.

**NOTE:** Do not mix Kocide DF with other fungicides because severe phytotoxicity may result.

Crop	Latin Name	Disease
Althea (Rose of Sharon)	<u>Hibiscus syriacus</u>	Bacterial Leaf Spot
Aralia	<u>Dizygotheca elegantissima</u>	Xanthomonas & Cercospora Leaf Spots, Alternaria
Arborvitae	<u>Thuja</u> sp.	Alternaria Twig Blight, Cercospora Leaf Blight
Azalea 1/	<u>Rhododendron</u> sp.	Cercospora Leaf Spot, ..... Botrytis Blight, ..... Phytophthora Dieback, ..... Powdery Mildew



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Begonia	<u>Begonia semperflorens</u>	Bacterial Leaf Spot ( <u>Xanthomonas</u> sp., <u>Erwinia</u> sp., <u>Pseudomonas</u> sp.)
Bougainvillea	<u>Bougainvillea spectabilis</u>	Anthrachnose, Bacterial Leaf Spot
Bulbs (Tulip, Gladiolus)	Miscellaneous	Anthrachnose, Botrytis Blight
Camphor Tree	<u>Cinnamomum camphora</u>	<u>Pseudomonas</u> Leaf Spot
Carnation 1/	<u>Dianthus</u> sp.	Alternaria Blight, <u>Pseudomonas</u> Leaf Spot, Botrytis Blight
Camelia	<u>Camellia japonica</u> , <u>C.</u> <u>sasangua</u>	Anthrachnose, Bacterial Leaf Spot
Canna	<u>Canna</u> sp	<u>Pseudomonas</u> Leaf Spot
Chinese Tallow Tree	<u>Sapium sebiferum</u>	Bacterial Leaf Spot ( <u>Xanthomonas</u> sp., <u>Pseudomonas</u> sp.)
Chrysanthemum 1/	<u>Chrysanthemum</u> <u>morifolium</u>	Septoria Leaf Spot, Botrytis Blight
Cotoneaster	<u>Cotoneaster</u> sp.	Botrytis Blight
Dahlia	<u>Dahlia pinnata</u>	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Date Palm	<u>Phoenix canariensis</u>	Pestalotia Leaf Spot
Dianthus	<u>Dianthus</u> sp.	Bacterial Spot, Bacterial Soft Rot
Flowering Dogwood	<u>Cornus florida</u>	Anthrachnose

Dusty Miller	<u>Senecio cineraria</u>	Bacterial Leaf Spot ( <u>Pseudomonas cichorii</u> )
Easter Lily 2/	<u>Lilium longiflorum</u>	Botrytis Blight
Echinacea	<u>Echinacea</u> sp.	Bacterial Leaf Spot ( <u>Pseudomonas cichorii</u> )
Elm, Chinese	<u>Ulmus parvifolia</u>	Xanthomonas Leaf Spot
Euonymus	<u>Euonymus</u> sp.	Botrytis Blight, Anthracnose
European Fan Palm	<u>Champaerops numilis</u>	Pestalotia Leaf Spot
Gardenia	<u>Gardenia jasminoides</u>	Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf Spot
Geranium	<u>Pelargonium</u> sp.	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Gladiolus	<u>Gladiolus</u> sp.	Alternaria Leaf Spot, Botrytis Gray Mold, Bacterial Leaf Blight
Golden Rain Tree	<u>Koelreuteria paniculata</u>	Bacterial Leaf Spot
Hibiscus	<u>Hibiscus rosa-sinensis</u>	Bacterial Leaf Spot
Holly Fern	<u>Cyrtomium falcatum</u>	Pseudomonas Leaf Spot
Impatiens	<u>Impatiens sallerana</u>	Bacterial Leaf Spot
India Hawthorn 3/	<u>Raphiolepis indica</u>	Anthracnose, Entomosporium Leafspot
Ivy (English, Algerian) 1/	<u>Hendera helix, H. canariensis</u>	Xanthomonas Leaf Spot
Ixora	<u>Ixora coccinea</u>	Xanthomonas Leaf Spot

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Juniper (Eastern Red Cedar)	<u>Juniperus virginiana</u>	Anthracnose
Lantana	<u>Lantana camera</u>	Bacterial Leaf Spot
Lilac	<u>Syringa sp.</u>	Cercospora Leaf Spot
Loblolly Bay	<u>Gordonia lasianthus</u>	Anthracnose
Loquat	<u>Eriobotrya japonica</u>	<u>Entomosporium maculata</u> , <u>Colletotrichum</u> sp.
Mandevillas	<u>Mandevilla sp.</u>	Anthracnose
Magnolia (Southern)	<u>Magnolia grandiflora</u>	Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot
Magnolia (Sweet Bay)	<u>Magnolia virginiana</u>	Anthracnose
Magnolia (Saucer)	<u>Magnolia soulangiana</u>	Bacterial Leaf Spot
Marigold	<u>Tagetes sp.</u>	Alternaria Leaf Spot, Botrytis Leaf and Rot, Cercospora Leaf Spot
Mulberry, Weeping	<u>Morus alba</u>	Bacterial Leaf Spot
Oleander	<u>Nerium oleander</u>	Bacterial Leaf Spot, Fungal Leaf Spot
Oak, Laurel	<u>Quercus laurifolia</u>	Algal Leaf Spot ( <u>Cephaleuros virescens</u> )
Pachysandra	<u>Pachysandra procumbens</u>	Volutella Leaf Blight
Pansy	<u>Viola Sp.</u>	Downy mildew
Pear (Flowering)	<u>Pyrus calleryana</u>	Fireblight, Leaf Spot
Peony	<u>Paeonia sp.</u>	Botrytis blight
Pentas (Egyptian Star)	<u>Pentas sp.</u>	Bacterial Leaf Spot ( <u>Xanthomomas</u> sp.)

Periwinkle	<u>Catharanthus roseus</u> , <u>vinca</u> sp.	Phomopsis Stem Blight
Phlox	<u>Phlox</u> sp.	Alternaria Leaf Spot
Pistachio	<u>Pistacia chinensis</u>	Anthracnose
Plantain lily	<u>Hosta</u> sp.	Bacterial Leaf Spot
Powder Puff Plant	<u>Callindra</u> sp.	Bacterial Leaf Spot
Philodendron	<u>Philodendron selloum</u>	Bacterial Leaf Spot
Photinia ("Red Tip", "Red Leaf")	<u>Photinia fraserii</u> , <u>P.</u> <u>glabra</u>	Anthracnose, Entomosporium
Pyracantha	<u>Pyracantha</u> sp.	Fireblight, Scab
Queen Palm	<u>Arecastrum</u> <u>romanzoffianum</u>	Exosporium Leaf Spot, Phytophthora Bud Rot
Rhododendron	<u>Rhododendron</u> sp.	Alternaria Flower Spot
Rose 1/	<u>Rosa</u> sp.	Powdery Mildew, Black Spot, Downey Mildew
Verbena	<u>Verbena</u> sp	Xanthomonas Leafspot
Viburnum	<u>Viburnum odoratissimum</u> , <u>V. suspensum</u>	Anthracnose
Washingtonia Palm	<u>Washingtonia robusta</u>	Pestalotia Leaf Spot
Weeping Willow	<u>Salix babylonica</u>	Anthracnose
Yucca (Adam's needle)	<u>Yucca</u> sp.	Cercospora and Septoria Leaf Spot

- (1) Discoloration of foliage and/or blooms have been noted on some varieties.
- (2) Apply Kocide DF at 4-6 Tbs. per gallon of water.
- (3) For Indian Hawthorn use 2 to 4 lbs. per 100 gallons or 1 to 2 level tablespoons per gallon.



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**NOTICE OF WARRANTY**

GRIFFIN warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of GRIFFIN. In no case shall GRIFFIN be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

**KOCIDE DF**

HOMEOWNER

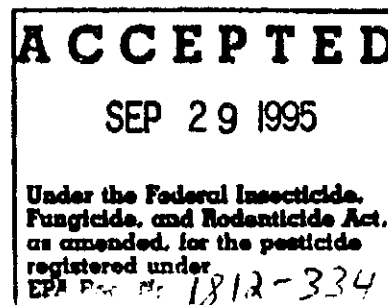
**DRY FLOWABLE FUNGICIDE/BACTERICIDE**

**Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.**

Active Ingredient	
Copper Hydroxide	61.4%
Inert Ingredients	38.6%
Total	100.0%

(Metallic Copper Equivalent 40%)

**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.)

**STATEMENT OF PRACTICAL TREATMENT**

**PRECAUCION AL USUARIO:** Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente.

**IF IN EYES:** Hold eyelids open and flush with water for 15 minutes. Get medical attention.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**IF SWALLOWED:** Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol. Get medical attention.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

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

Griffin Corporation  
Valdosta, GA 31601

EPA Reg. No. 1812-334  
EPA Est. No. 8901-TX-1

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## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)**

#### **DANGER - PELIGRO**

Corrosive. Causes irreversible eye damage. Harmful if swallowed, absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Follow manufacturer's instructions for cleaning and maintaining protective equipment. If no such instructions for washables, use detergent and hot water. Keep and wash clothing separately from other laundry.

User Safety Recommendations:

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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### **ENVIRONMENTAL HAZARDS**

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

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### **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.

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### RE-ENTRY STATEMENT

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

### STORAGE AND DISPOSAL

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.

**CONTAINER DISPOSAL:** Rinse empty container into application equipment. Then dispose of empty bottle in sanitary landfill, or wrap in newspaper and place in trash collection.

### GENERAL INSTRUCTIONS

Do not apply this product through any type of irrigation system.

**NOTE:** Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes of climatic modification and being grown in interior plantscapes, ornamental gardens or parks, or on golf courses or lawns and grounds.

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

When selecting a use rate for KOCIDE 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 use. In addition, use the higher rates for large mature tree crops.

Complete spray coverage is essential to assure optimum performance from KOCIDE DF. While volume is important in obtaining full spray coverage, often factors such as foliage density, environmental conditions and spray calibrations, have a greater impact.

When mixing, fill spray tank one-half full with water. Add KOCIDE DF slowly to tank while agitating (shaking) and continue filling with water.

It must be determined in the selection process if proper application equipment is available and if the waste associated with its use can be properly handled. Materials used in the construction of application equipment is also an important factor as certain chemicals are

often reactive with soft metals such as aluminum and even some synthetic materials such as plastics, rubbers, etc. Therefore it is necessary when working with equipment containing these materials that they are thoroughly flushed with clean water after each use.

**NOTE:** KOCIDE DF should not be applied in a spray solution having a pH of less than 6.5 as phytotoxicity 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 KOCIDE DF resulting in possible phytotoxicity or loss of effectiveness.

The following specific instructions are based on general application procedures.

### FROST INJURY PROTECTION

#### BACTERIAL ICE NUCLEATION INHIBITOR

Application of KOCIDE DF made to all plants 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 therefore provide some protection against light frost. Not recommended for those geographical areas where weather conditions favor severe frost.

### CITRUS

Disease	Rate/1 Gal. water	Use Instructions
Melanose, Scab, Algal Spot	1.0 TBS.	Apply as pre-bloom and post-bloom sprays.
Pink Pitting, Greasy Spot	0.5 TBS.	Apply in summer on expanded new flush. Repeat on subsequent flushes where disease pressure is severe.
Alternaria Brown Spot (suppression)	1.0 TBS.	On susceptible varieties apply when the first spring flush appears and each flush thereafter. Application to the fruiting bodies should start after two thirds of the petals have fallen and be repeated on a 21-day schedule.
Phytophthora, Brown Rot, Septoria Spot	0.75 TBS.	Mix with ½ 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 for protection for up to one year, but does not cure existing infections.

NOTE: In California, in areas subject to copper injury, add 1.0 TBS. of high quality lime per 1,000 square foot application of KOCIDE DF.

Phytophthora Foot Rot	8 Ozs.	Mix with 1 gallon of water and paint trunks of trees from the soil surface to the lowest scaffold limbs. Treatment serves for protection for up to one year, but does not cure existing infections.
Citrus Canker (Suppression Only)	1.0 TBS.	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 upon disease pressure. Under heavy pressure, each flush of new growth should be sprayed.

#### Small Fruits

Crop	Disease	Rate/1 gal.	Use Instructions
Blackberry (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chehalems & Thornless Evergreens)	Leaf and Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, Pseudomonas Blight	1.0 TBS.	Make fall application after harvest. Apply delayed dormant spray after training in the spring.
	Leaf and Cane Spot, Purple Blotch, Anthracnose, Yellow Rust	1.5 Tsp.	Apply when leaf buds begin to open and repeat when flower buds show white.

NOTE: Plant injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of plant

			injury appear.
Blueberry	Fruit Rot	3.0 TBS.	Make first application in late bloom. One or two additional applications at 10-14 day intervals may be required depending upon disease severity.
Cranberry	Rose Bloom	3.0 TBS.	Apply three sprays on 10 - 14 day schedule as soon as symptoms are observed.
	Bacterial Canker	3.0 TBS.	Apply post harvest and again in Spring at bud swell. One or two additional applications at 10 - 14 day intervals may be required depending on disease severity.
	Tip Blight (Monilinia), Stem and Leaf Blight, Red Leaf Spot	3.0 TBS.	Apply delayed dormant spray in the Spring. Repeat at 10 - 14 day intervals as needed through pre-bloom.
Currant, Gooseberry	Anthracnose, Leaf Spot	3.0 TBS.	Make first application before fall rains and a second application four weeks later.
			Make three applications starting after harvest followed by application before bloom and after petal fall.
Raspberry	Leaf and Cane Spot	1.0 TBS.	Apply delayed dormant spray after training in the spring. Make fall application after harvest.
Strawberries	Leaf Spot and Leaf Blight	1.0 TBS.	Begin application when plants are established and continue on a weekly schedule throughout season

**NOTE:** Discontinue applications if signs of crop injury appear.

# Tree Crops

**NOTE:** Larger volumes of up to 20 gallons may be needed to provide adequate coverage of foliage.

Almond	Coryneum Blight, (Shot Hole) Bacterial Canker and Blast ( <u>Pseudomona</u> ) Blossom Brown Rot	1.5 TBS.	Dormant application: Apply before foliage buds begin to swell.
		1.0 TBS.	Early bloom (popcorn) application: Apply before full bloom.
			<b>NOTE:</b> To avoid plant injury, do not use above rate after full bloom.
	Bacterial Blast ( <u>Pseudomonas</u> )	2.0 TBS.	Apply at dormant to early pink bud.
			<b>NOTE:</b> Injury may occur from post-bloom sprays, especially on Neplus varieties.
Apple	Anthrachnose, European Canker, Blossom and Shoot Blast ( <u>Pseudomonas</u> )	2.0 TBS.	Apply before fall rains.
			<b>NOTE:</b> Use on yellow varieties may cause discoloration. To avoid, pick before spraying.
	Fireblight	2.0 TBS.	Make application between silver-tip and green-tip. Apply as a full cover spray.
			<b>NOTE:</b> Crop injury may occur from late application;



discontinue use when green tip reaches 1/2 inch.

Crown or Collar  
Rot

1.0 TBS.

Mix in 1 gallon of water.  
Apply 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.

Apricot

Coryneum Blight  
(Shot Hole),  
Blossom Brown Rot

1.0 TBS.

Apply from dormancy to full bloom stages and use higher rates when conditions favor disease.

NOTE: Applications applied after bloom will result in crop injury.

Avocado

Anthracnose,  
Blotch, Scab

1.0 TBS.

Apply when bloom buds begin to swell and continue application at monthly intervals for 5-6 applications.

Banana

Sigatoka

1.0 TBS.

Apply on a 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.

Black Pitting

1.0 TBS.

Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.

Cacao

Black Pod

2.0 TBS.

Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made

			as often as 14 to 21 days in high rainfall areas. Apply 2 to 4 sprays at critical infection periods.
Cherry	Dead Bud ( <i>Pseudomonas syringae</i> ), Coryneum Blight	1.0 TBS.	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.
	Brown Rot, Blossom Blight	1.0 TBS.	Apply a full cover spray at popcorn stage and a second application at full bloom.
Coffee	Coffee Berry Disease ( <u>Collectotrichum coffeanum</u> )	2.0 TBS.	Apply first spray after flowering and before onset of long rains and then at 21-28 day intervals until picking.
	Bacterial Blight ( <u>Pseudomonas syringae</u> )	2.0 TBS.	Begin spray program before the onset of long rainy periods and continue throughout the rainy season at 14-21 day intervals. The critical time of spraying to control this disease is just before, during and after flowering(s) especially when coinciding with wet weather.
	Leaf Rust ( <u>Hemileia vastatrix</u> )	1.0 TBS.	Apply before the onset of rain and then at 21 day intervals while the rains continue.
	Leaf Rust - Brazil	1.5 TBS.	Apply before the onset of rain. Continue applications depending on altitude and local recommendations. Apply at 3 to 4 week intervals depending on disease severity and rainfall conditions.
	Iron Spot	1.0 TBS.	Begin treatment at the start of

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	<u>(Cercospora coffeicola)</u> , Pink Disease ( <u>Corticium salmonicolor</u> )		wet season and continue at monthly intervals for 3 applications.
Filbert	Bacterial Blight	3.0 TBS.	Apply as a post harvest spray. In seasons of heavy rainfall apply a second spray when three-fourths of the leaves have dropped.
	Eastern Filbert Blight	3.0 TBS.	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 an other application one month later.
Mango	Anthracnose	2.0 TBS.	Apply monthly after fruit set until harvest.
Olive	Peacock Spot, Olive Knot	2.0 TBS.	Make first application before winter rains fall. A second application in early spring should be made if disease is severe.
Peach, Nectarine	Leaf Curl, Coryneum Blight (Shot Hole)	2.0 TBS	Apply from leaf fall to late dormant stage. Use the highest rate when rainfall is very heavy and disease pressure is high.
	Brown Rot, Blossom Blight	1.0 TBS.	Full cover spray at pink bud. Application at this time affords some control of Leaf Curl and Coryneum Blight.
	Bacterial Spot	1.0 TBS.	Apply as a dormant spray.

NOTE: Do not spray 3 weeks

prior to harvest. Use only recommended rates. Spotting of leaves and defoliation may occur from use in foliage sprays.

Pear	Fire Blight	1.0 Tsp.	Apply at 5 day intervals throughout the bloom period.
	Pseudomonas Blight	2.0 TBS.	Apply before fall rains and again during dormancy before spring growth starts.
NOTE: Excessive dosages may cause fruit russet.			
Pecan	Shuck & Kernal Rot ( <u>Phytophthora cactorum</u> ) and Zonate Leafspot ( <u>Cristulariella pyramidalis</u> )	2.0 TBS	For suppression, apply in sufficient water to ensure complete spray coverage at 2 to 4 week intervals starting at kernal growth and continuing until shucks open.
Pistachio	Botrytis Blight, Botryosphaeria panicle and shoot blight, Septoria leaf blight, late blight ( <u>Alternaria alternata</u> )	2.0 TBS	Make initial application at bud swell and repeat on a 14 - 28 day schedule as dictated by disease conditions.
Plum & Prune	Coryneum Blight (Shot Hole)	2.0 TBS.	Apply as a dormant spray.
	Brown Rot, Blossom Blight	1.0 TBS.	Apply full cover application at pink, red or early white bud stage.
Quince	Fire Blight	1.0 TBS.	Apply at 5 day intervals through bloom period. Apply in adequate water for thorough coverage.
Walnut	Walnut Blight	3.0 TBS.	Apply first application 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 if frequent rainfall occurs. Thorough coverage of catkins, leaves and nutlets is essential for effective control.

**NOTE:** Adequate control may not be obtained when copper tolerant species of *Xanthomonas* bacteria are present.

### Vegetables

Beans	Bacterial Blight (Halo & Common), Brown Spot	1.0 TBS.	For protective sprays, make first application when plants are 6 inches high; repeat on a 7-14 day schedule depending upon local conditions.
Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Greens (Beet, Collard, Mustard, & Turnip)	Black Rot ( <i>Xanthomonas</i> ) & Black Leaf Spot ( <i>Alternaria</i> )  Downy Mildew (Cabbage Only)	1.0 TBS.	Apply at 7-10 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.
Cantaloupe, Honeydew, Muskmelon	Downy Mildew	1.0 TBS.	<b>NOTE:</b> Reddening of older leaves may occur on Broccoli and a flecking of wrapper leaves may occur on Cabbage.  Begin application when conditions are favorable for disease development and repeat at 5-7 day intervals as needed depending on disease severity
Carrot	<i>Cercospora</i> Leaf	1.0 TBS.	Begin application when disease

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	Spot		first threatens and repeat at 7-14 day intervals as needed depending on disease severity.
Celery, Celeriac	Cercospora Early Blight, Septoria Late Blight, & Bacterial Blight	1.0 TBS.	Begin applications as soon as plants are first established in the field, repeating at 5-7 day intervals depending on disease severity and environmental conditions.
Cucumber	Angular Leaf Spot and Downy Mildew	1.0 TBS.	Apply weekly when plants begin to vine.
Eggplant	Alternaria Blight, Anthracnose, & Phomopsis	1.0 TBS.	Begin applications prior to development of disease symptoms. Repeat sprays at 7-10 day intervals or as needed depending on disease severity.
Onion	Purple Blotch & Downy Mildew	1.0 TBS.	Begin when plants are 4-6 inches high and repeat at 7-10 day intervals as needed depending upon disease pressure.
Pea	Powdery Mildew	1.0 TBS.	Begin applications when disease symptoms first appear and repeat at weekly intervals as needed.
Peanut	Cercospora Leaf Spot	1.0 TBS.	Begin spraying at 35-40 days after planting or when disease symptoms first appear and repeat at 10-14 day intervals as needed. Reduce sprays to 7 day intervals during humid weather.
Pepper	Bacterial Spot	1.0 TBS.	Begin applications when conditions first favor disease development and repeat at 5-10 day intervals as needed depending on disease severity.

Potato	Early and Late Blight	2.0 TSP.	Apply at 7-10 day intervals starting when plants are 6 inches high until 2 weeks before harvest.
Pumpkin & Squash	Powdery Mildew	1.0 TBS.	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.
Spinach	Anthracnose, White Rust, Blue Mold, Cercospora Leaf Spot	1.0 TBS.	Begin application when disease first appears or when conditions favor disease development. Repeat at 7-10 day intervals as needed.
			NOTE: Flecking may occur on Spinach leaves.
Table Beet	Cercospora Leaf Spot	1.0 TBS.	Begin applications when conditions first favor disease development and repeat at 10-14 day intervals as needed.
Tomato	Early & Late Blight	2.0 TBS.	Begin when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity.
	Bacterial Speck	2.0 TBS.	Begin applications when disease first threatens and repeat at 10-30 day intervals or as needed depending on disease severity.
	Bacterial Spot, Anthracnose, Gray Leaf Mold, Septoria Leaf Spot	2.0 TBS.	Begin applications when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity.
Watercress	Cercospora leafspot	1.0 TBS.	Begin application when plants are first established in the garden, repeating at 7 - 14 day intervals depending on disease

severity and environmental conditions. Do not exceed 4 applications per crop. Apply using ground spray equipment.

### VINES

Watermelon	Anthracnose	1.0 TBS.	Apply as soon as plants become established in the field and repeat at weekly intervals as needed depending upon disease severity.
	Downy Mildew	1.0 TBS.	Apply as soon as plants become established in the field and repeat at weekly intervals as needed depending upon disease severity.
Grape	Black Rot, Powdery Mildew, Downy Mildew	1.0 TBS.	Begin application at bud break with subsequent applications throughout the season depending upon disease severity.
<p>NOTE: Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara, and Rosetts. Test for sensitivity.</p>			
Kiwis	<u>Pseudomonas syringae</u> , <u>Erwinia herbicola</u> , <u>Pseudomonas fluorescens</u>	2.0 TBS.	Apply at 4 gallons of water per 1,000 square feet. Make applications on a monthly basis. A maximum of 3 applications may be made.

### MISCELLANEOUS

Atemoya	Anthracnose	1.0 TBS.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest.
Carambola	Anthracnose	3.0 TBS.	Make initial application just