1812-334 03/30/2000 1 of 1/40

Please read Instructions on reverse before completing form. Form Approved. OMB No. 2070-0060

United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/ Product Number 1812-334	2. EPA Product Manager Cynthia Giles-Parker	3. Proposed Classification ☒ None ☐ Restricted
4. Company/ Product (Name) Kocide DF	PM# 22	

5. Name and Address of Applicant *(Include ZIP Code)*
Griffin L.L.C.
P.O. Box 1847
Valdosta, Georgia 31603-1847
☐ *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.
☐ Resubmission in response to Agency letter dated _____
☒ Notification - Explain below.
☐ Final printed labels in response to Agency letter dated _____
☐ "Me Too" Application.
☐ Other - explain below.

NOTIFICATION
MAR 30 2000

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

Notification of addition of phomopsis control on grape and emergency telephone number per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section III

1. **Material This Product Will Be Packaged In:**

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes* ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify) _____
* *Certification must be submitted.*	If "Yes," Unit Package wgt. / No. per container	If "Yes," Package wgt. / No. per container	

3. Location of Net Contents Information	4. Size(s) of Retail Container	5. Location of Label Directions
☐ Label ☐ Container		☐ On Label ☐ On Labeling accompanying product

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	Title	Telephone No. (Include Area Code)
W. A. Hawkins, Jr.	Registration Manager, Copper Products	912-293-4242 Ext. 1104

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	3. Title
W. A. Hawkins, Jr.	Registration Manager, Copper Products
4. Typed Name	5. Date
W. A. Hawkins, Jr.	March 17, 2000

03/17/00

KOCIDE® DF

g334n00a

DRY FLOWABLE

FUNGICIDE/BACTERICIDE

NOTIFICATION

MAR 3 0 2000

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

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.
For medical emergencies involving this product, call toll free 1-888-324-7598.
See Label for Additional Precautions and Directions for Use

Griffin L.L.C.
Valdosta, Georgia 31601

EPA Reg. No. 1812-334
EPA Est. No.

Net Contents _____

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.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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. 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 clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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 high 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.

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 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 intervals. 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 without required PPE.

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-flush container.

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
- Waterproof gloves
- Shoes plus socks
- 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.

Keep unprotected persons out of treated area until sprays have dried.

STORAGE AND DISPOSAL

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

Kocide DF may be applied as an aerial, ground dilute or ground concentrate spray unless specifically directed otherwise in the specific crop use directions.

The per acre use rate of Kocide DF is applicable for both dilute and concentrate spraying. Depending upon the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to Minimum Recommended Spray Volume Table. Complete spray coverage is essential to assure optimum performance from Kocide DF. When treating by aerial application or with low volume application equipment, unless you have had specific previous experience, it is advisable to test for compatibility and tolerance to crop injury prior to full scale commercial utilization.

Consult the Kocide DF label for specific rates and timing of application by crop. Do not apply less than the label recommended minimum amount when selecting a Kocide DF use rate. Where application rates and intervals are provided in a range (e.g. 4 to 12 pounds and 7 to 10 days), higher rates and shorter intervals are recommended when rainfall is heavy and/or disease pressure is high. Use the higher rates for large mature tree crops.

SPECIAL PRECAUTIONS

* Kocide DF **should not be applied** in a spray solution having a pH of less than 6.5 as phytotoxicity may occur.

* Do not tank mix Kocide DF with Aliette® fungicide for use on any registered crops or ornamentals unless appropriate precautions have been taken to buffer the spray solution because severe phytotoxicity may result. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such

mixing.

* 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.

* 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.

* 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 potential crop injury prior to commercial use of a new tank mix; otherwise, tank mixing should not be undertaken.

* It must be determined if proper application equipment is available and if the waste associated with its use can be properly handled. The material used in the construction of application equipment is also an important factor as agricultural chemicals are often reactive with some 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 day's use.

* Do not apply this product through any irrigation (chemigation) 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, traveler, big gun, or plastic pipe solid set system(s) which contain no aluminum parts or components. Do not apply this product through any other type of irrigation system.

* 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 spray equipment 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 Kocide DF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. **DO NOT PRE-MIX OR SLURRY** Kocide DF. Spreaders, stickers, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank. Observe all precautions and limitations on the labels of all

products used in mixtures or contact your chemical supplier.

CROP CLASSIFICATION

CITRUS: Grapefruit, Kumquat, Lemon, Lime, Orange, Pummelo, Tangelo and Tangerine.

FIELD CROPS: Alfalfa, Barley, Oats, Peanut, Potato, Sugar Beet and Wheat.

SMALL FRUITS: Blackberry, Blueberry, Cranberry, Currant, Gooseberry, Raspberry and Strawberry.

TREE CROPS: Almond, Apple, Apricot, Avocado, Banana, Cacao, Cherry, Coffee, Filbert, Mango, Nectarine, Olive, Peach, Pear, Pecan, Pistachio, Plum, Prune, Quince and Walnut.

VEGETABLES: Bean, Beet, Beet Greens, Broccoli, Brussels Sprout, Cabbage, Cantaloupe, Carrot, Cauliflower, Celeriac, Celery, Cucumber, Eggplant, Endive, Escarole, Greens (Collard, Mustard and Turnip), Honeydew, Lettuce, Muskmelon, Onion/Garlic, Pea, Pepper, Pumpkin, Spinach, Squash, Tomato, Watercress and Watermelon.

VINES: Grape, Hops and Kiwi.

MISCELLANEOUS: Atemoya, Carambola, Chives, Dill, Douglas Fir, Ginseng, Guava, Litchi, Live Oak, Macadamia, Mamey Sapote, Papaya, Parsley, Passion Fruit, Pecan, Sugar Apple and Sycamore.

GREENHOUSE AND SHADEHOUSE CROPS: Kocide DF may be used in greenhouses and shadehouses to control diseases on any crop on this label where physiology allows greenhouse or shadehouse culture. While specific directions are presented for Citrus, Cucumber, Eggplant, Pepper and Tomato; general use may occur for any crop on this label where physiology allows greenhouse or shadehouse culture.

TURFGRASS: Algae control.

ORNAMENTALS: Species as listed.

Minimum Recommended Spray Volume (Gallons Per Acre) When Applying Kocide DF

	Aerial	Ground	
		Dilute	Concentrate
Citrus	10	800	100* (Florida)
Field Crops	3	20	---
Ornamentals	10	100	50
Small Fruits	5	150	50
Tree Crops	10	400	50
Vegetables	3	20	---
Vines	5	150	50
Miscellaneous	10	150	50

*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.

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 Kocide 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, Pseudomonas fluorescens*) and may therefore provide some protection against light frost. Not recommended for those geographical areas where weather conditions favor severe frost.

CITRUS

Kocide DF may be mixed with dry foliar nutritionals (micronutrients) to create "Shot Bag" mixes to meet the various nutritional requirements of citrus and provide disease protection as described on this label. Kocide DF per acre rates in these mixes must not exceed the maximum recommended label rates for disease control.

Adding foliar nutritionals or other products to spray mixtures containing Kocide DF and applying to citrus during the post-bloom period when young fruit are present may result in spray

burn.

Disease	Rate/Acre	Use Instructions
Melanose, Scab, Algal Spot	4-12 lbs.	Apply as pre-bloom and post-bloom sprays. Use higher rates when conditions favor disease.
Greasy Spot, Pink Pitting	2-6 lbs.	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	4-8 lbs.	On susceptible varieties, apply when the first spring flush appears and each flush thereafter. Application to fruit should start after two thirds of the petals have fallen and be repeated on a 21 day schedule or as needed. Use higher rates when conditions favor disease.
Phytophthora Brown Rot, Septoria Spot	4-8 lbs.	Begin application in fall before or just after the first rain and continue as needed. For Brown Rot only, apply to skirts of trees to a height of at least 4 feet. For control of Septoria Spot or where fruit have already been infected with Brown Rot, apply to entire tree. Apply also to bare ground one foot beyond skirt. Use higher rates when conditions favor disease. **NOTE:** In California, in areas subject to copper injury, add 1/3 to 1 pound of high quality lime per pound of Kocide DF.
Phytophthora Foot Rot	1 lb.	Mix with 1 quart of water, Tre-Hold® or latex paint. 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 1 year, but does not cure existing infections. **NOTE:** Areas where microjet or low volume

		irrigation hit the tree trunk may require retreatment due to wash off.
Citrus Canker (suppression)	12 lbs.	Spray flushes 7 to 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.

NOTE: Phytotoxicity may occur on young tender flush when Kocide DF is applied to citrus seedlings grown in greenhouses or shadehouses.

CITRUS
Field Nursery Grown

To control Melanose, Scab, Pink Pitting, Greasy Spot, Brown Rot and for suppression of Citrus Canker, apply 4 to 8 pounds of Kocide DF per acre. Apply Kocide DF at 28 day intervals or as needed depending on disease severity.

FIELD CROPS

Crop	Disease	Rate/Acre	Use Instructions
Alfalfa	Cercospora Leaf Spot, Lepto-sphaerulina Leaf Spot	2 lbs.	Apply 10 to 14 days before each harvest or earlier if disease threatens. **NOTE:** Spray injury may occur with sensitive varieties such as Lahontan.
Peanut	Cercospora Leaf Spot	1.5-3 lbs.	Begin spraying at 35 to 40 days after planting or when disease symptoms first appear and repeat at 10 to 14 day intervals or as needed. Reduce sprays to 7 day intervals during humid weather. Use higher rates when conditions favor disease. Flowable sulfur may be added.
Potato	Early Blight, Late Blight	1-4 lbs.	Apply 1 to 1.5 lbs. at 7 to 10 day intervals or as needed starting when plants are 2 to 6 inches high in locations where disease is light.

			Apply up to 4 pounds per acre when disease is more severe. Under conditions of severe disease, control with Kocide 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.
Sugar Beet	Cercospora Leaf Spot	2-5 lbs.	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals or as needed. Use the higher rates when conditions favor disease. Addition of a spreader/sticker is recommended.
Wheat, Barley, Oats	Septoria Leaf Blotch, Helminthosporium Spot Blotch	1.5-2 lbs.	Make first application at early heading and follow with second spray 10 days later. Use higher rates when conditions favor disease.

SMALL FRUITS

Crop	Disease	Rate/Acre	Use Instructions
Blackberry (Aurora, Boysen, Cascade, Chehalem, Logan,	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, Yellow Rust, Pseudomonas Blight	4 lbs.	Make fall application after harvest. Apply delayed dormant spray after pruning/training in the spring. If needed, agricultural-type spray oil may be added.
Marion, Santiam, Thornless Evergreen)	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, Yellow Rust	2 lbs.	Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural-type spray oil may be added.
			NOTE: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.

Blueberry	Bacterial Canker	4-8 lbs.	Make first application before fall rains and a second application 4 weeks later. Use higher rates when conditions favor disease.
	Phomopsis Twig Blight, Fruit Rot	3-5 lbs.	Dormant Application: Begin applications when bloom buds begin to swell. Make additional applications at 10 to 14 day intervals or as needed before blooms open.
Cranberry	Fruit Rot	8 lbs.	Make first application in late bloom. Apply one or two additional applications at 10 to 14 day intervals or as needed depending on disease severity.
	Rose Bloom	8 lbs.	Apply three sprays on 10 to 14 day schedule or as needed as soon as symptoms are observed.
	Bacterial Stem Canker	8 lbs.	Apply post harvest and again in spring at bud swell. Apply one or two additional applications at 10 to 14 day intervals or as needed depending on disease severity.
	Tip Blight (*Monilinia*), Stem Blight, Leaf Blight, Red Leaf Spot	8 lbs.	Apply delayed dormant spray in the spring. Repeat at 10 to 14 day intervals or as needed through pre-bloom.
Currant, Gooseberry	Anthracnose, Leaf Spot	10 lbs.	Make initial application after first leaves have expanded. Continue on a 10 to 14 day schedule or as needed during wet conditions in the spring. Make an additional application after harvest.
Raspberry	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, Yellow Rust,	4 lbs.	Make fall application after harvest. Apply delayed dormant spray after training in the spring. If needed, agricultural-type spray oil may be

	Pseudomonas Blight		added.
	Leaf Spot, Cane Spot, Purple Blotch, Anthracnose, Yellow Rust	2 lbs.	Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural-type spray oil may be added. **NOTE:** Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.
Strawberry	Leaf Spot, Leaf Scorch, Leaf Blight, Angular Leaf Spot (*Xanthomonas*)	2-3 lbs.	Begin application when plants are established and continue on a weekly schedule throughout season. Apply in at least 20 gallons of water. Use the higher rates when conditions favor disease. **NOTE:** Discontinue applications if signs of crop injury appear.

TREE CROPS

Crop	Disease	Rate/Acre	Use Instructions
Almond, Apricot, Cherry, Plum, Prune	Coryneum Blight (Shot Hole), Bacterial Canker, Bacterial Blast (*Pseudomonas*)	8-16 lbs.	Make first application before fall rains and a second at late dormant. Use higher rates when conditions favor disease. If needed, agricultural-type spray oil may be added. For Cherries, where disease is severe, an additional application shortly after harvest may be required. Almond only: For Bacterial Blast control in sprinkler irrigated orchards or where disease is severe,

			apply 1 pound per acre post-bloom at 2 week intervals or as needed or just before sprinkling. **NOTE:** Foliar injury may occur from post-bloom sprays on almonds, especially on NePlus varieties.
	Coryneum Blight (Shot Hole), Blossom Brown Rot	6-8 lbs. (Almond) 8-12 lbs. (All Others)	Apply during early bloom. Do not apply after full bloom or injury may result. Use higher rates when rainfall is heavy and disease pressure is high.
	Black Knot (Plum)	4-8 lbs..	Make an application at bud swell up to early bloom for early season disease suppression. Apply before full bloom. Use higher rates when rainfall is heavy and disease pressure is high. **NOTE:** To avoid plant injury, do not use after full bloom.
	Cherry Leaf Spot (Sour Cherries Only)	6-8 lbs.	Apply at petal fall as well as 1 to 2 times after petal fall. Use lower rates where disease infection is light and use higher rates for a dormant application or where disease infection is moderate to heavy. Do not apply to sweet cherry or the English Morello variety as severe injury will result. The addition of 1 to 3 pounds of hydrated lime per pound of Kocide DF may reduce crop injury. **NOTE:** Moderate to severe injury such as leaf spotting and defoliation may occur from post-bloom applications.
Apple	Anthracnose,	12-16 lbs.	Apply before fall rains. Use higher

European Canker (*Nectria*), Blossom Blast, Shoot Blast (*Pseudomonas*)		rates when conditions favor disease. **NOTE:** Use on yellow varieties may cause discoloration. To avoid discoloration, pick before spraying.
Fire Blight, Apple Scab	8-16 lbs.	Make application between silver-tip and green-tip. Apply as a full cover spray for early season disease suppression. **NOTE:** Moderate to severe crop injury may occur from late application; discontinue use when green-tip reaches ½ inch.
Extended spray schedule where fruit finish is not a concern:		
Fire Blight	1-2 lbs	Continued applications may be made at 5 to 7 day intervals or as needed between ½ inch green-tip and first cover spray. **NOTE:** Moderate to severe crop injury may result from this extended spray schedule. It is not intended for fresh market apples or for apples where fruit finish is a concern as it is likely to cause fruit russetting. The addition of 1 to 3 pounds of hydrated lime per pound of Kocide DF may reduce crop injury.
Apple Scab	2-4 lbs.	
Crown Rot, Collar Rot	4 lbs.	Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply in early spring or in fall after harvest for best results. Do not apply to foliage or fruit.

			NOTE: Do not use if soil pH is below 5.5 since copper toxicity may result.
Avocado	Anthracnose, Blotch, Scab	8-12 lbs.	Apply when bloom buds begin to swell and continue application at monthly intervals for five to six applications. Use higher rates when conditions favor disease.
Banana	Sigatoka (Black and Yellow)	2 lbs.	Apply by air in 3 gallons of water. If needed, agricultural-type spray oil may be added. Apply on a 14 day schedule or as needed throughout the wet season. Apply at 21 day intervals or as needed during dry periods.
	Black Pitting	4 lbs.	Mix in 100 gallons of water. Apply to the fruit stem and the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
Cacao	Black Pod	2-8.5 lbs.	Begin applications at the start of the rainy season and continue while infection conditions persist. Apply 2 to 4 pounds as often as 14 to 21 day intervals or as needed depending on disease severity. For drier areas, make two to four applications using 6.5 to 8.5 pounds per acre, according to disease incidence and planting density.
Coffee	Coffee Berry Disease (*Colletotrichum coffeanum*)	6-8 lbs.	Apply first spray after flowering and before onset of long rains and then at 21 to 28 day intervals or as needed until picking. Use higher rates when conditions favor disease.
	Bacterial Blight (*Pseudomonas*	6-8 lbs.	Begin spray program before the onset of long rainy periods and

	syringae)		continue throughout the rainy season at 14 to 21 day intervals or as needed. 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 when rainfall is heavy and disease pressure is high.
	Leaf Rust (*Hemileia vastatrix*)	2-4 lbs.	Apply before the onset of rain and then at 21 day intervals or as needed while the rains continue. Use higher rates when rainfall is heavy and disease pressure is high.
	Iron Spot (*Cercospora coffeicola*), Pink Disease (*Corticium salmonicolor*)	2 lbs.	Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.
Filbert	Bacterial Blight	16-24 lbs.	Apply as a post harvest spray. In seasons of heavy rainfall apply a second spray when three-fourths of the leaves have dropped. Use higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added.
	Eastern Filbert Blight	16-24 lbs.	Apply as a dilute spray in adequate water for thorough coverage. Make applications starting at bud swell to bud break and continue at 2 week intervals or as needed until early May. Thorough coverage is essential. Use higher rates when rainfall is heavy and disease pressure is high. If needed, oil or sticking agent may be added.
Mango	Anthracnose	8-10 lbs.	Apply monthly after fruit set until

			harvest. Use higher rates when rainfall is heavy and disease pressure is high.
Olive	Peacock Spot, Olive Knot	8-12 lbs.	Make first application before winter rains begin. 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 disease development.
Peach, Nectarine	Leaf Curl, Coryneum Blight (Shot Hole), Bacterial Canker, Bacterial Blast (*Pseudomonas*), Bacterial Spot (*Xanthomonas*)	8-16 lbs.	Make first application before fall rains and a second at late dormant. For peach leaf curl, late dormant application must be made before leaf buds swell. Use higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added.
	Blossom Brown Rot, Leaf Curl, Coryneum Blight (Shot Hole)	8-12 lbs.	Full cover spray at pink bud. Use higher rates when conditions favor disease.
	Bacterial Spot	1 lb.	Post-bloom application applied at first and second cover sprays. **NOTE:** Do not spray 3 weeks prior to harvest. Use only recommended rates. Spotting of leaves and defoliation may occur from use in cover sprays.
Pear	Fire Blight	1 lb.	Apply at 5 day intervals or as needed throughout the bloom period. **NOTE:** Russetting may occur in copper sensitive varieties. Excessive dosages may cause fruit russet on any variety.

	Blossom Blast (*Pseudomonas*)	12-16 lbs.	Apply before fall rains and again during dormancy before spring growth starts. Use higher rates when disease pressure is high or when conditions favor disease development.
Pecan	Shuck Rot, Kernel Rot (*Phytophthora cactorum*), Zonate Leaf Spot (*Cristulariella pyramidalis*)	2-4 lbs.	For suppression, apply in sufficient water to ensure complete spray coverage at 2 to 4 week intervals or as needed starting at kernel growth and continue until shucks open. Use higher rates and shorter interval if frequent rainfall occurs.
Pistachio	Botrytis Blight, Botryosphaeria Panicle and Shoot Blight, Septoria Leaf Blight, Late Blight (*Alternaria alternata*)	4-8 lbs.	Make initial application at bud swell and repeat on a 14 to 28 day schedule or as needed. If disease conditions are severe, use higher rates and shorter spray intervals.
Quince	Fire Blight	1 lb.	Apply at 5 day intervals or as needed throughout the bloom period. Apply in adequate water for thorough coverage.
Walnut	Walnut Blight	8-12 lbs.	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 frequent rainfall or extended periods of moisture occur. 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

Crop	Disease	Rate/Acre	Use Instructions
Bean (Dry, Green)	Brown Spot, Halo Blight, Common Blight	1-3 lbs.	Use higher rates for more severe disease. For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 14 day schedule or as needed depending on environmental conditions.
Beet (Table Beet, Beet Greens)	Cercospora Leaf Spot	2-5 lbs.	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals or as needed. Use higher rates when conditions favor disease.
Carrot	Alternaria Leaf Spot, Cercospora Leaf Spot	2 lbs.	Begin applications when disease first threatens and repeat at 7 to 14 day intervals or as needed depending on disease severity.
Celery, Celeriac	Cercospora Early Blight, Septoria Late Blight, Bacterial Blight	2 lbs.	Begin applications as soon as plants are first established in the field, repeating at 5 to 7 day intervals or as needed depending on disease severity and environmental conditions.
Crucifers (Broccoli, Brussels Sprout, Cabbage, Cauliflower, Collard Greens, Mustard Greens, Turnip Greens)	Black Rot (*Xanthomonas*), Black Leaf Spot (*Alternaria*), Downy Mildew	1-2 lbs.	Apply at 7 to 10 day intervals or as needed. 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 a flecking of wrapper leaves may occur on cabbage.

Cucurbits (Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash, Watermelon)	Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Powdery Mildew, Gummy Stem Blight, Watermelon Bacterial Fruit Blotch (Suppression)	1.5-3 lbs.	Begin applications prior to disease development and continue while conditions are favorable for disease development. Repeat at 5 to 7 day intervals or as needed. Use higher rates when conditions favor disease. **NOTE:** Crop injury may occur from application at higher rates and shorter intervals. Discontinue use if injury occurs.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	2 lbs.	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals or as needed depending on disease severity.
Lettuce, Endive, Escarole	Downy Mildew	1-2 lbs.	Begin treatment when disease first appears and repeat every 7 to 10 days or as needed to suppress disease. Use shorter intervals and higher rates when conditions favor disease. **NOTE:** Flecking and/or yellowing of leaves may 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.
Onion, Garlic	Purple Blotch, Downy Mildew,	2 lbs.	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 to leaves.
	Bacterial Blight	1-1.5 lbs.	
Pea	Powdery Mildew	1.5-3 lbs.	Begin applications when disease symptoms first appear and repeat at weekly intervals or as needed. Use

			higher rates when conditions favor disease.
Pepper	Bacterial Spot, Anthracnose, Cercospora Leaf Spot	2-3 lbs.	Begin applications when conditions first favor disease development and repeat at 7 to 10 day intervals or as needed depending on disease severity. Use higher rates when conditions favor disease.
Spinach	Anthracnose, White Rust, Blue Mold, Cercospora Leaf Spot	2-3 lbs.	Begin application when disease first appears or when conditions favor disease development. Repeat at 7 to 10 day intervals or as needed. Use higher rates when conditions favor disease. **NOTE**: Flecking may occur on spinach leaves.
Tomato	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	2-4 lbs.	Begin applications when disease first threatens and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use higher rates when conditions favor disease.
Watercress	Cercospora Leaf Spot	2 lbs.	Begin applications when plants are first established in the field, repeating at 7 to 14 day intervals or as needed depending on disease severity. Do not exceed four applications per crop. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.

VINES

Crops	**Disease**	**Rate/Acre**	**Use Instructions**
Grape	Black Rot,	2 lbs.	Begin applications at bud break with

	Downy Mildew, Powdery Mildew, Phomopsis		subsequent applications throughout the season depending on disease severity. **NOTE:** Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara and Rosette. Either test for sensitivity or add 1 to 3 pounds of hydrated lime per pound of Kocide DF.
Hops	Downy Mildew	2 lbs.	Make crown treatment after pruning, but before training. After training, additional treatments are needed at about 10 day intervals. **NOTE:** Discontinue use two weeks before harvest.
Kiwi	*Pseudomonas syringae, Erwinia herbicola, Pseudomonas fluorescens*	8 lbs.	Apply in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of three applications may be made.

MISCELLANEOUS

Crop	Disease	Rate/Acre	Use Instructions
Atemoya	Anthracnose	3-4.5 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use higher rates for severe disease.
Carambola	Anthracnose	6-9 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use higher rates for severe disease.

Chives	Downy Mildew	2 lbs.	Begin applications when plants are established in the field. Repeat applications every 7 to 10 days or as needed depending on disease conditions.
Dill	Phoma Leaf Spot, Rhizoctonia Foliage Blight	2-3 lbs.	Begin applications when plants are first established in the field and repeat at 7 to 10 day intervals or as needed depending on disease severity and environmental conditions. Use higher rates when conditions favor disease.
Douglas Fir	Rhabdocline Needlecast	2-3 lbs.	Begin applications at bud break and repeat at 3 to 4 week intervals or as needed. Use higher rates for severe disease.
Ginseng	Alternaria Leaf Blight, Stem Blight	2.5-4 lbs.	Use as a tank mix with 2 pounds Rovral® 50W in 100 gallons of water. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Begin Kocide-Rovral applications as soon as plants have emerged in spring. Applications should be repeated every 7 days or as needed until plants become dormant in fall. Apply fungicides at least 8 hours before rain. Use of a spreader-sticker or sticker is advised. **NOTE:** Alternaria Leaf and Stem Blight is most severe in humid conditions such as those found in the dense canopies of 2 to 4 year old Ginseng. It is very important that the stems be thoroughly covered

			with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.
Guava	Anthracnose, Red Algae	3-4.5 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use higher rates for severe disease.
Litchi	Anthracnose	3-4.5 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use higher rates for severe disease.
Live Oak, Pecan	Ball Moss	6-9 lbs.	Apply in 100 gallons of water in the spring when ball moss is actively growing, using 1½ 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 or pecans. 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.
Macadamia	Anthracnose	6-9 lbs.	Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use higher rates for severe disease.
	Phytophthora Blight	4.5-6 lbs.	Apply during raceme development

	(*P. capsici*), Raceme Blight (*Botrytis cinerea*)		and bloom periods. Apply in sufficient water for thorough coverage. Use higher rates when conditions favor disease.
Mamey Sapote	Anthracnose, Algal Leaf Spot	6-8 lbs.	Apply when conditions favor disease development. Repeat on 14 to 30 day schedule or as needed as disease severity and environmental conditions dictate. Use higher rates when conditions favor disease.
Papaya	Anthracnose	4-10 lbs.	Apply before disease appears. Apply at 10 to 14 day intervals under light disease pressure and 5 to 7 day intervals or as needed under heavy disease pressure. The addition of an approved spreader is desirable. Use higher rates when conditions favor disease.
Parsley	Bacterial blight (*Pseudomonas* sp.)	3 lbs.	Begin applications when plants are first established in the field and repeat at 5 to 7 day intervals or as needed depending on disease severity and environmental conditions.
Passion Fruit	Anthracnose	6-9 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use higher rates when conditions favor disease.
Sugar Apple (*Annona*)	Anthracnose	12-18 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use higher rates when conditions favor disease.
Sycamore	Anthracnose	2-3 lbs.	Apply as a full cover spray in 100

gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 to 10 days later at 10% leaf expansion. Use higher rates when conditions favor disease.

TURFGRASS

For use to control algae in turfgrass on sod farms, golf courses, cemeteries, home lawns and industrial or municipal turf areas, including parks, playgrounds and athletic fields. Apply 1.5 pounds Kocide DF per 1,000 square feet in 5 gallons of water. Kocide DF may be used alone or in combination with other registered turf fungicides as a maintenance spray. 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 for 7 to 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.

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

GREENHOUSE AND SHADEHOUSE CROPS

Notice to User: Kocide DF may be used in greenhouses and shadehouses to control diseases on crops which appear on this label, and specific instructions have been developed for the crops listed. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shadehouses differs greatly from crops grown under field conditions. Neither the manufacturer nor seller has determined whether or not Kocide DF can be used safely on all greenhouse and shadehouse grown crops. The user should determine if Kocide DF can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e. foliage, fruit, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use.

Apply Kocide DF according to specific rates given for those crops in pounds per acre. **One level tablespoon of Kocide DF per 1,000 square feet is equivalent to 1 pound per acre.** Kocide 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 or as needed; use shorter interval during periods when severe disease conditions persist.

NOTE: Phytotoxicity may occur on young tender flush when Kocide DF is applied to citrus seedlings grown in greenhouses or shadehouses.

Crop	Disease	Rate Per 1,000 Sq Ft	Use Instructions
Citrus (Non-Bearing Nursery)	Melanose, Scab, Pink Pitting, Greasy Spot, Brown Rot, Citrus Canker	4 TBSP	Begin applications when disease first threatens. Repeat at 30 day intervals or as needed depending on disease severity.
Cucumber	Angular Leaf Spot, Downy Mildew	1½-3 TBSP	Apply weekly when plants begin to vine. Use higher rates when conditions favor disease.
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 severity. Use higher rates when conditions favor disease.
Pepper	Bacterial Spot	2-3 TBSP	Begin applications when conditions first favor disease development and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use higher rates for severe disease.
Tomato	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Grey Leaf Mold, Late Blight, Septoria Leaf Spot	2-4 TBSP	Begin applications when disease first threatens and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use higher rates when conditions favor disease.

ORNAMENTALS

Use Kocide DF for control of bacterial and fungal diseases of foliage, flowers and stems on ornamentals in greenhouses, shadehouses, outdoor nurseries and outdoor landscape plantings.

For ornamental crops in dormancy, apply as a thorough cover spray at rates ranging from 1 to 4 pounds per acre of Kocide DF. When new growth is present, apply as a thorough cover spray at rates ranging from 1 to 3 pounds per acre of Kocide DF. **One level tablespoon of Kocide DF per 1,000 square feet is equivalent to 1 pound per acre.** Begin application at first sign of

disease and repeat at 7 to 14 day intervals or as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist.

Kocide DF may be used alone or in combination with other fungicides registered for use on ornamentals as a maintenance spray. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Notice to User: Plant sensitivities to Kocide DF have been found to be acceptable for the specific genera and species listed on this label under the conditions tested. However, phytotoxicity may occur. Due to the large number of species and varieties of ornamental and nursery plants, and the wide range of growing conditions, 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 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.

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

Crop	Scientific Name	Disease
Aglaonema	*Aglaonema* spp.	Bacterial Leaf Spot
Althea (Rose of Sharon)	*Hibiscus syriacus*	Bacterial Leaf Spot
Andromeda, Japanese*	*Pieris japonica*	Leaf Spots, Twig Blight
Aralia	*Dizygotheca elegantissima*	Xanthomonas Leaf Spot, Cercospora Leaf Spot, Alternaria
Arborvitae	*Thuja* spp.	Alternaria Twig Blight, Cercospora Leaf Blight
Aster*	*Aster* spp.	Downy Mildew, Leaf Spots
Azalea 1/	*Rhododendron* spp.	Cercospora Leaf Spot, Botrytis Blight, Phytophthora Dieback, Powdery Mildew

Beech*	*Fagus* spp.	Leaf Spots
Begonia	*Begonia semperflorens*	Bacterial Leaf Spot (*Xanthomonas* spp., *Erwinia* spp., *Pseudomonas* spp.)
Boston Fern	*Nephrolepis exaltata*	Bacterial Leaf Spot
Bougainvillea	*Bougainvillea spectabilis*	Anthracnose, Bacterial Leaf Spot
Boxwood*	*Buxus* spp.	Leaf Spots
Camellia	*Camellia japonica, C. sasanqua*	Anthracnose, Bacterial Leaf Spot
Camphor Tree	*Cinnamomum camphora*	Pseudomonas Leaf Spot
Canna	*Canna* spp.	Pseudomonas Leaf Spot
Carnation 1/	*Dianthus* spp.	Alternaria Blight, Pseudomonas Leaf Spot, Botrytis Blight
Cedar*	*Cedrus* spp.	Tip Blight
Chinese Tallow Tree	*Sapium sebiferum*	Bacterial Leaf Spot (*Xanthomonas* spp., *Pseudomonas* spp.)
Chrysanthemum 1/	*Chrysanthemum morifolium*	Septoria Leaf Spot, Botrytis Blight, Pseudomonas Leaf Spot
Cotoneaster	*Cotoneaster* spp.	Botrytis Blight
Crabapple*	*Malus* spp.	Fire Blight
Cypress*	*Cupressus* spp.	Twig Blight
Dahlia	*Dahlia pinnata*	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot

Date Palm	*Phoenix canariensis*	Pestalotia Leaf Spot
Delphinium*	*Delphinium* spp.	Leaf Spots
Dianthus	*Dianthus* spp.	Bacterial Spot, Bacterial Soft Rot
Dogwood	*Cornus florida*	Anthracnose
Dracaena	*Dracaena marginata*	Bacterial Leaf Spot
Dumb Cane	*Dieffenbachia* spp.	Bacterial Leaf Spot
Dusty Miller	*Senecio cineraria*	Bacterial Leaf Spot (*Pseudomonas cichorii*)
Easter Lily 2/	*Lilium longiflorum*	Botrytis Blight
Echinacea	*Echinacea* spp.	Bacterial Leaf Spot (*Pseudomonas cichorii*)
Elm, Chinese	*Ulmus parvifolia*	Xanthomonas Leaf Spot
Euonymus	*Euonymus* spp.	Botrytis Blight, Anthracnose
European Fan Palm	*Chamaerops humilis*	Pestalotia Leaf Spot
Filbert (Ornamental)*	*Corylus* spp.	Filbert Blight
Gardenia	*Gardenia jasminoides*	Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf Spot
Geranium	*Pelargonium* spp.	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Gladiola	*Gladiolus* spp.	Alternaria Leaf Spot, Anthracnose, Botrytis Gray Mold, Bacterial Leaf Blight
Golden Rain Tree	*Koelreuteria paniculata*	Bacterial Leaf Spot

Grape Ivy	*Cissus* spp.	Bacterial Leaf Spot
Hawthorn*	*Crataegus* spp.	Fire Blight
Hibiscus 4/	*Hibiscus* spp.	Bacterial Leaf Spot
Holly*	*Ilex* spp.	Bacterial Blight, Leaf Spots
Holly Fern	*Cyrtomium falcatum*	Pseudomonas Leaf Spot
Honeylocust	*Gleditsia triacanthos*	Bacterial Leaf Spot
Impatiens	*Impatiens sallerana*	Bacterial Leaf Spot
Indian Hawthorn 5/	*Raphiolepis indica*	Anthracnose, Entomosporium Leaf Spot
Iris 6/	*Iris* spp.	Bacterial Leaf Spot
Ivy (English, Algerian) 1/	*Hedera helix, H. canariensis*	Xanthomonas Leaf Spot
Ixora	*Ixora coccinea*	Xanthomonas Leaf Spot
Juniper	*Juniperus* spp.	Anthracnose, Twig Blight
Lantana	*Lantana camera*	Bacterial Leaf Spot
Lilac	*Syringa* spp.	Cercospora Leaf Spot
Linden*	*Tilia* spp.	Anthracnose, Leaf Blight
Loblolly Bay	*Gordonia lasianthus*	Anthracnose
Loquat	*Eriobotrya japonica*	*Entomosporium maculata, Colletotrichum* spp.
Magnolia (Southern)	*Magnolia grandiflora*	Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot
Magnolia (Sweetbay)	*Magnolia virginiana*	Anthracnose

Magnolia (Oriental)	*Magnolia soulangiana*	Bacterial Leaf Spot
Mandevilla	*Mandevilla* spp.	Anthracnose
Maple*	*Acer* spp.	Pseudomonas Leaf Blight
Marigold	*Tagetes* spp.	Alternaria Leaf Spot, Botrytis Leaf Rot, Flower Rot, Cercospora Leaf Spot
Mountain-Ash*	*Sorbus* spp.	Fire Blight
Mulberry, Contorted	*Morus bombycis*	Bacterial Leaf Spot
Mulberry, Weeping	*Morus alba*	Bacterial Leaf Spot
Narcissus*	*Narcissus* spp.	Leaf Blight
Nephthytis	*Syngonium podophyllum*	Bacterial Leaf Spot
Oak*	*Quercus* spp.	Leaf Spots
Oak, Laurel	*Quercus laurifolia*	Algal Leaf Spot (*Cephaleuros virescens*)
Oleander	*Nerium oleander*	Bacterial Leaf Spot, Fungal Leaf Spot
Oregon Grapeholly*	*Mahonia acquifolium*	Leaf Spots
Pachysandra	*Pachysandra procumbens*	Volutella Leaf Blight
Parlor Palm	*Chamaedorea elegans*	Bacterial Leaf Spot
Peach (Flowering) 3/*	*Prunus* spp.	Fire Blight, Bacterial Blast, Brown Rot
Pear (Flowering)	*Pyrus calleryana*	Fire Blight, Leaf Spot
Pentas (Egyptian Star)	*Pentas* spp.	Bacterial Leaf Spot (*Xanthomonas* spp.)

Peony	*Paeonia* spp.	Botrytis Blight
Periwinkle	*Catharanthus roseus*, *Vinca* spp.	Phomopsis Stem Blight
Philodendron	*Philodendron selloum*	Bacterial Leaf Spot
Phlox	*Phlox* spp.	Alternaria Leaf Spot
Photinia (Red Tip)	*Photinia* x *fraserii, P. glabra*	Anthracnose, Entomosporium Leaf Spot
Pine*	*Pinus* spp.	Needle Blight
Pistachio	*Pistacia chinensis*	Anthracnose
Plantain Lily 6/	*Hosta* spp.	Bacterial Leaf Spot
Plum (Flowering) 3/*	*Prunus* spp.	Fire Blight, Bacterial Blast, Brown Rot
Pothos	*Scindapsus* spp.	Bacterial Leaf Spot
Powder Puff Plant	*Calliandra* spp.	Bacterial Leaf Spot
Pyracantha	*Pyracantha* spp.	Fire Blight, Scab
Queen Palm	*Arecastrum romanzoffianum*	Exosporium Leaf Spot, Phytophthora Bud Rot
Rhododendron	*Rhododendron* spp.	Alternaria Flower Spot
Rose 1/	*Rosa spp.*	Powdery Mildew, Black Spot
Snapdragon	*Antirrhinum majus*	Anthracnose, Dieback, Downy Mildew
Spathe Flower	*Spathiphyllum* spp.	Bacterial Leaf Spot
Spirea*	*Spiraea* spp.	Fire Blight

Spruce*	*Picea* spp.	Needle Casts
Tatarian Honeysuckle	*Lonicera tatarica*	Bacterial Leaf Spot
Tulip	*Tulipa* spp.	Anthracnose, Botrytis Blight
Umbrella Tree	*Schefflera* spp.	Bacterial Leaf Spot
Verbena	*Verbena* spp.	Xanthomonas Leaf Spot
Viburnum	*Viburnum odoratissimum, V. plicatum, V. suspensum*	Anthracnose
Viola (Pansy, Violet)*	*Viola* spp.	Downy Mildew
Washingtonia Palm	*Washingtonia robusta*	Pestalotia Leaf Spot
Weeping Fig	*Ficus benjamina*	Bacterial Leaf Spot
Willow	*Salix* spp.	Anthracnose
Yew*	*Taxus* spp.	Needle Blight
Yucca (Adam's Needle)	*Yucca* spp.	Cercospora Leaf Spot, Septoria Leaf Spot
Zinnia*	*Zinnia* spp.	Leaf Spots

*Use in all states except California

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

2/ Apply Kocide DF at 3 to 5 pounds per acre.

3/ Apply dormant through bloom only.

4/ Hibiscus - Do not apply to plants in flower.

5/ For Indian Hawthorn use 2 to 4 pounds per acre.

6/ Some cultivars may be sensitive to Kocide DF.

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

GENERAL CHEMIGATION INSTRUCTIONS

Do not apply this product through any irrigation (chemigation) 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, traveler, big gun, or plastic pipe solid set system(s) which contain no aluminum parts or components. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness or illegal pesticide residues can result from nonuniform 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.

Shut off injection equipment after treatment and continue to operate irrigation system until Kocide DF has been cleared from the last sprinkler head.

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, in-patient 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 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 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 ½ 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.

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

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 the 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 pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must 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.

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.

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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

NOTE: 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 agricultural 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 day's use.

When mixing, fill nurse tank half full with water. Add Kocide DF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. **DO NOT PRE-MIX OR SLURRY** Kocide DF. Stickers, spreaders, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe all precautions and limitations on the labels of all products used in mixtures. Agitation of the mixture in the nurse tank is recommended.

Kocide DF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Shut off injection equipment after treatment and continue to operate irrigation system until Kocide DF has been cleared from the last sprinkler head.

SPRINKLER CHEMIGATION

The system 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.

The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

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.

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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

NOTE: 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 agricultural 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 day's use.

When mixing, fill nurse tank half full with water. Add Kocide DF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. **DO NOT PRE-MIX OR SLURRY** Kocide DF. Stickers, spreaders, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe all precautions and limitations on the labels of all products used in mixtures. Agitation of the mixture in the nurse tank is recommended.

Kocide DF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Shut off injection equipment after treatment and continue to operate irrigation system until Kocide DF has been cleared from the last sprinkler head.

WARRANTY STATEMENT

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. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling or application of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid for this product or at GRIFFIN'S election, the replacement of this product. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

[Based on the EPA stamped accepted label (with comments) dated June 7, 1999 and the stamped accepted label dated August 24, 1999]