



PM23

1812-338

Yellow Copy 1431

	U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (H7505C) 401 "M" St., S.W. Washington, D.C. 20460	EPA Reg. Number: 1812-338	Date of Issuance: APR 21 1999
	<b>NOTICE OF PESTICIDE:</b> <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration  (under FIFRA, as amended)	Term of Issuance: Conditional	
		Name of Pesticide Product: KOCIDE LF	
Name and Address of Registrant (include ZIP Code): Griffin Corporation P.O. Box 1847 Valdosta, GA 31603-1847			
Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.			
On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.  Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.  This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:  1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.  2. Make the labeling changes listed below before you release the product for shipment:  a. Add the phrase "EPA Registration No. 1812-338."  b. Correct the spelling of "vapor" under Precautionary Statements.  If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.  A stamped copy of your label is enclosed for your records.			
Signature of Approving Official: 		Date:	

2831

**KOCIDE® LF**

Active Ingredient Copper Hydroxide . . . . .	23%
Inert Ingredients . . . . .	<u>77%</u>
Total . . . . .	100%

**ACCEPTED**  
**with COMMENTS**  
 in EPA Letter Dated:  
 APR 21 1993

**FUNGICIDE/BACTERICIDE**

(Metallic Copper Equivalent 15%)  
 (2.4 Pounds Copper Hydroxide per Gallon)

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

1812-336

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION - AVISO**

**STATEMENT OF PRACTICAL TREATMENT**

**IF IN EYES:** Flush eyes with plenty of water. Call physician if irritation persists.

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

**IF SWALLOWED:** Call a physician or poison control center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

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

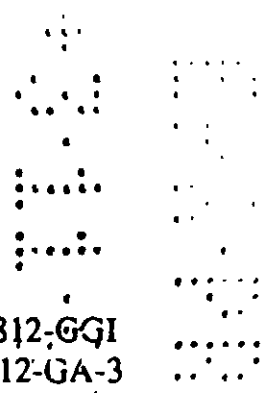
**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate use of gastric lavage.

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

Net Contents 2 1/2 gallons

Griffin Corporation  
 Valdosta, GA 31601

EPA Reg. No. 1812-GGI  
 EPA Est. No. 1812-GA-3



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION - AVISO**

Causes moderate eye injury. Avoid breathing vapor or spray mist. Harmful if swallowed or absorbed through the skin. Avoid contact with eyes, or skin and clothing. Protective clothing, including goggles, should be worn. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not allow rinsate from cleaning of equipment or disposed material to enter surface or ground water.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**RE-ENTRY STATEMENT**

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. Proper protective clothing includes: long trousers, long sleeve shirt, rubber boots, hat, gloves and protective eyewear (goggles or face shield) suitable for a contact type product.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure). When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: **WARNING.** Area treated with Kocide LF on (date of application). Do not enter without appropriate protective clothing until spray has dried. In case of accidental exposure see Statement of Practical Treatment.

**STORAGE AND DISPOSAL**

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

**STORAGE:** Store in a cool, dry place.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. 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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerator, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### GENERAL INSTRUCTIONS

Use Kocide LF as noted below. Kocide LF is adaptable to spraying from aircraft and ground spraying equipment. Depending upon the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to recommended volume table below.

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

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

### GENERAL CHEMIGATION INSTRUCTIONS

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation system(s). Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact 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.

### **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.

When mixing, fill nurse tank half full with water. Add Kocide LF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. 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 cautions and limitations on the label of all products used in mixtures.

Kocide LF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Agitation is recommended.

### 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 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.

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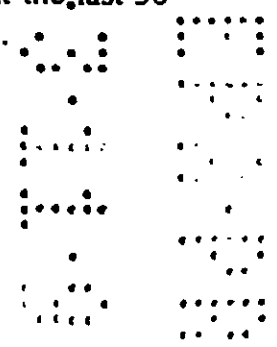
### CROP CLASSIFICATION

**CITRUS:** Grapefruit, Lemon, Lime, Orange, Tangelo and Tangerine.

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

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

**TURF:** Algae control



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

**VEGETABLES:** Beans, Broccoli, Brussels Sprout, Cabbage, Cantaloupe, Carrot, Cauliflower, Celery, Collards, Cucumber, Eggplant, Endive, Escrole, Honeydew, Lettuce, Muskmelon, Onion, Peas, Peppers, Pumpkin, Spinach, Squash, Tomato Watercress and Watermelon.

**VINES:** Grape, Hops and Kiwi.

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

### USE INSTRUCTIONS

Kocide LF may be applied as an aerial, ground dilute or ground concentrate spray unless specifically directed otherwise by crop.

When selecting a Kocide LF use rate do not apply less than the label recommended minimum amount. Under heavy disease pressure or when conditions favor such, use the higher rate and shorter spray intervals specified for each crop. In addition, use the higher rates for large mature tree crops.

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

Complete spray coverage is essential to assure optimum performance from Kocide LF. 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. 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 LF resulting in possible phytotoxicity or loss of effectiveness.

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

When mixing, fill spray tank one-half full with water. Add Kocide LF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Spreader stickers, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the compatibility jar test before mixing a whole tank.

**NOTE:** Kocide LF should not be applied in a spray solution having a pH of less than 6.5 as phytotoxicity may occur. Applying Kocide LF in a spray solution having a pH greater than 9.0 may result in reduced level of disease control.

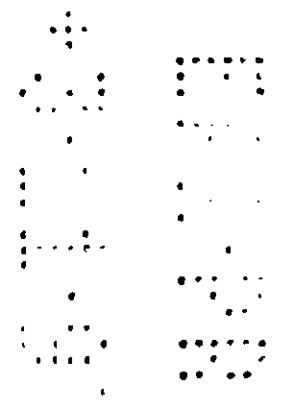
The following specific instructions are based on general application procedures. The recommendations of the State Agricultural Extension Service should be closely followed as to timing, frequency, and number of sprays per season.

**CITRUS**

Disease	Pints/100 Gal	Pints/Acre	Use Instructions
Melanose, Scab, Pink Pitting	1 - 2	6 - 16	Apply as pre-bloom and post-bloom sprays.
Brown Rot	2/3 - 1 1/3	5 1/3 - 10 2/3	Begin application in fall and continue as needed. Apply to entire tree. Apply also to bare ground one foot beyond skirt. Use higher rates when conditions favor disease.
Greasy Spot		1/3 - 1 gal.	
NOTE: In California, in areas subject to copper injury, add 1/3 to 1 pound of high quality lime per quart of Kocide LF.			
Citrus Canker (Suppression Only)	2	16	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.

**FIELD CROPS**

Crop	Disease	Pints/Acre	Use Instructions
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9 of 31

Alfalfa	Cercospora and Leptosphaerulina Leaf Spots	2%	Apply 10-14 days before each harvest or earlier if disease threatens.  NOTE: Spray injury may occur with sensitive varieties such as Lathontan.
Barley, Oats, Wheat	Septoria Leaf Blotch, Helminthosporium Spot Blotch	1 1/2 - 2%	Make first application at early heading and follow with second spray 10 days later. Use the higher rates when conditions favor disease.
Peanut	Cercospora Leaf Spot	2 - 4	One to two quarts of SUPER SIX® per acre may be added. 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. Use higher rates when conditions favor disease.
Potato	Early and Late Blight	1 1/2 - 5 1/2	Apply 1 1/2-2 pints at 7-10 day intervals starting when plants are 6 inches high until 2 weeks before harvest in locations where disease is light and up to 4-5 1/2 pints per acre where disease is more severe.
Sugar Beet	Cercospora Leaf Spot	2% - 6%	Begin applications when conditions first favor disease development and repeat at 10-14 day intervals as needed. Use the higher rate when disease is severe. Addition of a suitable agricultural spray oil is recommended.

#### SMALL FRUITS

Crop	Disease	Pints/Acre	Use Instructions
Blackberry (Santiams, Logans, Boysens, Marions,	Leaf and Cane Spot	5 1/2	Apply delayed dormant spray after training in the spring. Make fall application after harvest. Add 1 quart of crop oil per acre.

Auroras,  
Cascades,  
Chehalems &  
Thornless  
Evergreens)

Cranberry	Fruit Rot	10%	Make first application in late bloom. One or two additional applications at 10-14 day intervals may be required depending upon disease severity.
Current, Gooseberry	Leaf Spot	13 1/3	Make three applications starting after harvest followed by application before bloom and after petal fall.
Raspberry (Except CA)	Leaf and Spot	Cane 5 1/3	Apply delayed dormant spray after training in the spring. Make fall application after harvest. Add 1 quart of crop oil per acre.
Strawberry	Leaf Spot and Leaf Blight	2% - 4	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**

Crop	Disease	Pints/100 Gal	Pints/Acre	Use Instructions
Almond	Coryneum Blight, Blossom Brown Rot	2% - 4	10% - 16	Dormant application: Apply before foliage buds begin to swell. Use higher rates when rainfall is heavy and disease pressure is high.

		2½ - 4	8 - 10%	<p>Early bloom (popcorn) application: Apply before full bloom. Use higher rates when rainfall is heavy and disease pressure is high.</p> <p><b>NOTE:</b> To avoid plant injury, do not use above rate after full bloom.</p>
	<b>Bacterial Blast</b> <b>(Pseudomonas)</b>	4 - 5½	12 - 21½	<p>Apply at dormant to early pink bud. For control in sprinkler irrigated orchards or where disease is severe, apply ⅓ pint per 100 gallons, not to exceed 1½ pints per acre, at 2 week post-bloom intervals or just before sprinkling.</p> <p><b>NOTE:</b> Injury may occur from post-bloom sprays, especially on Neplus varieties.</p>
<b>Apple</b>	<b>Anthracnose,</b> <b>European</b> <b>Canker,</b> <b>Blossom and</b> <b>Shoot Blast</b> <b>(Pseudomonas)</b>	4 - 5½	16 - 21½	<p>Apply before fall rains. Use higher rates under severe disease conditions.</p> <p><b>NOTE:</b> Use on yellow varieties may cause discoloration. To avoid, pick before spraying.</p>
	<b>Fireblight</b>	2½ - 5½	10% - 21½	<p>Make application between silver-tip and green-tip. Apply as a full cover spray.</p> <p><b>NOTE:</b> Crop injury may occur from late application; discontinue use when green tip reaches ½ inch.</p>

	<b>Crown or Collar Rot</b>	<b>5 1/2</b>	-----		Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in late fall after harvest.
					<b>NOTE:</b> Do not use if soil pH is below 5.5 since copper toxicity may result.
<b>Apricot</b>	<b>Coryneum Blight (Shot Hole), Blossom Brown Rot</b>	<b>2 3/4 - 4</b>		<b>10 3/4 - 16</b>	Apply at popcorn to full bloom and use higher rates when conditions favor disease.
					<b>NOTE:</b> Applications applied after bloom will result in crop injury.
<b>Avocado</b>	<b>Scab</b>	<b>2 3/4 - 4</b>		<b>10 3/4 - 16</b>	Apply when bloom buds begin to swell and continue application at monthly intervals for 5-6 applications. Use higher rate when conditions favor disease.
<b>Banana</b>	<b>Sigatoka</b>		-----	<b>2 3/4</b>	Apply by air in 3 gallons of water combining 0.5 gallons of agricultural oil. Apply on a 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.
	<b>Black Pitting</b>	<b>5 1/2</b>		<b>5 1/2</b>	Mix in 100 gallons of water and 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% - 6	10% - 24	Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates depending on disease severity. For drier areas, where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 8% to 11% pints per acre, according to disease incidence and planting density.
Cherry	Dead Bud ( <u>Pseudomonas syringae</u> ), Coryneum Blight	8	10% - 16	Make first application in fall before heavy rains and a second at late dormant. In orchards where the disease is severe, a spray should also be applied shortly after harvest. Add 1 pint of superior-type oil per 100 gallons of water as a dilute spray.
	Brown Rot, Blossom Blight	2% - 4	10% - 16	Apply a full cover spray at popcorn stage and a second application at full bloom.
Coffee	Coffee Berry Disease ( <u>Collectotrichum coffeanum</u> )	2 - 2%	8 - 10%	Apply first spray after flowering and before onset of long rains and then at 21-28 day intervals until picking. Use higher rates when rainfall is heavy and disease pressure is high.

<p>Bacterial Blight (<u>Pseudomonas syringae</u>)</p>	<p>2 - 2%</p>	<p>8 - 10%</p>	<p>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. Use higher rates when rainfall is heavy and disease pressure is high.</p>
<p>Leaf Rust (<u>Hemileia vastatrix</u>)</p>	<p>2/3 - 1 1/3</p>	<p>2% - 5%</p>	<p>Apply before the onset of rain and then at 21 day intervals while the rains continue. Use higher rates when rainfall is heavy and disease pressure is high.</p>
<p>Leaf Rust - Brasil</p>		<p>4 2/3 - 7 1/3</p>	<p>Low density plantings.</p>
		<p>9 1/3 - 10%</p>	<p>High density plantings.  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. Use high rates where disease pressure is heavy and rainfall high.</p>
<p>Iron Spot (<u>Cercospora coffeicola</u>), Pink Disease</p>	<p>2/3</p>	<p>2%</p>	<p>Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly</p>

Reg # 1812-338

PM-22

Yellow Copy 1931

	U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (H7505C) 401 "M" St., S.W. Washington, D.C. 20460		EPA Reg. Number: 1812-338	Date of Issuance: APR 21 1973
	<b>NOTICE OF PESTICIDE:</b> <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration		Term of Issuance: Conditional	
	(under FIFRA, as amended)		Name of Pesticide Product: KOCIDE LF	
Name and Address of Registrant (include ZIP Code): <b>Griffin Corporation</b> P.O. Box 1847 Valdosta, GA 31603-1847				
Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.				
On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.				
Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.				
This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:				
1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.				
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A stamped copy of your label is enclosed for your records.				
Signature of Approving Official: 			Date:	

2931

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Inert Ingredients . . . . .	77%
Total . . . . .	100%

**ACCEPTED**  
**with COMMENTS**  
 In EPA Letter Dated:  
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 group under EPA Reg. No.

1812-336

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION - AVISO**  
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**IF IN EYES:** Flush eyes with plenty of water. Call physician if irritation persists.

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

**IF SWALLOWED:** Call a physician or poison control center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**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.

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

Net Contents 2 1/2 gallons

Griffin Corporation  
 Valdosta, GA 31601

EPA Reg. No. 1812-GGI  
 EPA Est. No. 1812-GA-3

**BEST AVAILABLE COPY**



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION - AVISO**

Causes moderate eye injury. Avoid breathing vapor or spray mist. Harmful if swallowed or absorbed through the skin. Avoid contact with eyes, or skin and clothing. Protective clothing, including goggles, should be worn. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not allow rinsate from cleaning of equipment or disposed material to enter surface or ground water.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**RE-ENTRY STATEMENT**

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. Proper protective clothing includes: long trousers, long sleeve shirt, rubber boots, hat, gloves and protective eyewear (goggles or face shield) suitable for a contact type product.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure). When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: **WARNING.** Area treated with Kocide LF on (date of application). Do not enter without appropriate protective clothing until spray has dried. In case of accidental exposure see Statement of Practical Treatment.

**STORAGE AND DISPOSAL**

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

**STORAGE:** Store in a cool, dry place.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. 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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerator, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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**GENERAL INSTRUCTIONS**

Use Kocide LF as noted below. Kocide LF is adaptable to spraying from aircraft and ground spraying equipment. Depending upon the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to recommended volume table below.

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

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

**GENERAL CHEMIGATION INSTRUCTIONS**

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation system(s). Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact 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 and under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### **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.

When mixing, fill nurse tank half full with water. Add Kocide LF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. 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 cautions and limitations on the label of all products used in mixtures.

Kocide LF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Agitation is recommended.

### 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 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.

) When mixing, fill nurse tank half full with water. Add Kocide LF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. 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 cautions and limitations on the label of all products used in mixtures.

Kocide LF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Agitation is recommended.

### CROP CLASSIFICATION

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

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

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

TURF: Algae control

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

**VEGETABLES:** Beans, Broccoli, Brussels Sprout, Cabbage, Cantaloupe, Carrot, Cauliflower, Celery, Collards, Cucumber, Eggplant, Endive, Escrole, Honeydew, Lettuce, Muskmelon, Onion, Peas, Peppers, Pumpkin, Spinach, Squash, Tomato Watercress and Watermelon.

**VINES:** Grape, Hops and Kiwi.

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

### USE INSTRUCTIONS

Kocide LF may be applied as an aerial, ground dilute or ground concentrate spray unless specifically directed otherwise by crop.

When selecting a Kocide LF use rate do not apply less than the label recommended minimum amount. Under heavy disease pressure or when conditions favor such, use the higher rate and shorter spray intervals specified for each crop. In addition, use the higher rates for large mature tree crops.

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

Complete spray coverage is essential to assure optimum performance from Kocide LF. 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. 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 LF resulting in possible phytotoxicity or loss of effectiveness.

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

When mixing, fill spray tank one-half full with water. Add Kocide LF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Spreaders, stickers, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the compatibility jar test before mixing a whole tank.

**NOTE:** Kocide LF should not be applied in a spray solution having a pH of less than 6.5 as phytotoxicity may occur. Applying Kocide LF in a spray solution having a pH greater than 9.0 may result in reduced level of disease control.

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.

**CITRUS**

Disease	Pints/100 Gal	Pints/Acre	Use Instructions
Melanose, Scab, Pink Pitting	1 - 2	6 - 16 <i>260</i>	Apply as pre-bloom and post-bloom sprays. <i>A. G. W.</i>
Brown Rot	$\frac{1}{2}$ - $1\frac{1}{2}$	$5\frac{1}{2}$ - $10\frac{1}{2}$	Begin application in fall and continue as needed. Apply to entire tree. Apply also to bare ground one foot beyond skirt. Use higher rates when conditions favor disease.
Greasy Spot		$\frac{1}{2}$ - 1 gal.	

**NOTE:** In California, in areas subject to copper injury, add  $\frac{1}{2}$  to 1 pound of high quality lime per quart of Kocide LF.

Citrus Canker (Suppression Only)	2	16	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.
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**FIELD CROPS**

Crop	Disease	Pints/Acre	Use Instructions
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Alfalfa	Cercospora and Leptosphaerulina Leaf Spots	2%	Apply 10-14 days before each harvest or earlier if disease threatens.  NOTE: Spray injury may occur with sensitive varieties such as Lathontan.
Barley, Oats, Wheat	Septoria Leaf Blotch, Helminthosporium Spot Blotch	1½ - 2%	Make first application at early heading and follow with second spray 10 days later. Use the higher rates when conditions favor disease.
Peanut	Cercospora Leaf Spot	2 - 4	One to two quarts of SUPER SIX® per acre may be added. 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. Use higher rates when conditions favor disease.
Potato	Early and Late Blight	1½ - 5½	Apply 1½-2 pints at 7-10 day intervals starting when plants are 6 inches high until 2 weeks before harvest in locations where disease is light and up to 4-5½ pints per acre where disease is more severe.
Sugar Beet	Cercospora Leaf Spot	2% - 6%	Begin applications when conditions first favor disease development and repeat at 10-14 day intervals as needed. Use the higher rate when disease is severe. Addition of a suitable agricultural spray oil is recommended.

#### SMALL FRUITS

Crop	Disease	Pints/Acre	Use Instructions
Blackberry (Santiams, Logans, Boysens, Marions,	Leaf and Cane Spot	5%	Apply delayed dormant spray after training in the spring. Make fall application after harvest. Add 1 quart of crop oil per acre.

Auroras,  
Cascades,  
Chehalems &  
Thornless  
Evergreens)

Cranberry	Fruit Rot	10%	Make first application in late bloom. One or two additional applications at 10-14 day intervals may be required depending upon disease severity.
Currant, Gooseberry	Leaf Spot	13%	Make three applications starting after harvest followed by application before bloom and after petal fall.
Raspberry (Except CA)	Leaf and Spot	Cane 5%	Apply delayed dormant spray after training in the spring. Make fall application after harvest. Add 1 quart of crop oil per acre.
Strawberry	Leaf Spot and Leaf Blight	2% - 4	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**

Crop	Disease	Pints/100 Gal	Pints/Acre	Use Instructions
Almond	Coryneum Blight, Blossom Brown Rot	2% - 4	10% - 16	Dormant application: Apply before foliage buds begin to swell. Use higher rates when rainfall is heavy and disease pressure is high.

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2 1/2 - 4

8 - 10 1/2

Early bloom (popcorn) application: Apply before full bloom. Use higher rates when rainfall is heavy and disease pressure is high.

NOTE: To avoid plant injury, do not use above rate after full bloom.

**Bacterial Blast**  
**(Pseudomonas)**

4 - 5 1/2

12 - 21 1/2

Apply at dormant to early pink bud. For control in sprinkler irrigated orchards or where disease is severe, apply 1/2 pint per 100 gallons, not to exceed 1 1/2 pints per acre, at 2 week post-bloom intervals or just before sprinkling.

NOTE: Injury may occur from post-bloom sprays, especially on Neplus varieties.

Apple

**Anthracnose,**  
**European**  
**Canker,**  
**Blossom and**  
**Shoot Blast**  
**(Pseudomonas)**

4 - 5 1/2

16 - 21 1/2

Apply before fall rains. Use higher rates under severe disease conditions.

NOTE: Use on yellow varieties may cause discoloration. To avoid, pick before spraying.

**Fireblight**

2 1/2 - 5 1/2

10 1/2 - 21 1/2

Make application between silver-tip and green-tip. Apply as a full cover spray.

NOTE: Crop injury may occur from late application; discontinue use when green tip reaches 1/2 inch.

12 9 31

Crown or 5 1/2  
Collar Rot -----

Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in late fall after harvest.

NOTE: Do not use if soil pH is below 5.5 since copper toxicity may result.

} Apricot Coryneum 2 3/4 - 4 10% - 16  
Blight (Shot  
H o l e ) ,  
B l o s s o m  
Brown Rot

Apply at popcorn to full bloom and use higher rates when conditions favor disease.

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

Avocado Scab 2 3/4 - 4 10% - 16

Apply when bloom buds begin to swell and continue application at monthly intervals for 5-6 applications. Use higher rate when conditions favor disease.

} Banana Sigatoka ----- 2 3/4

Apply by air in 3 gallons of water combining 0.5 gallons of agricultural oil. Apply on a 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.

Black Pitting 5 1/2 5 1/2

Mix in 100 gallons of water and 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.

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Cacao	Black Pod	2% - 6	10% - 24	Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates depending on disease severity. For drier areas, where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 8% to 11% pints per acre, according to disease incidence and planting density.
Cherry	Dead Bud ( <u>Pseudomonas syringae</u> ), Coryneum Blight	8	10% - 16	Make first application in fall before heavy rains and a second at late dormant. In orchards where the disease is severe, a spray should also be applied shortly after harvest. Add 1 pint of superior-type oil per 100 gallons of water as a dilute spray.
	Brown Rot, Blossom Blight	2% - 4	10% - 16	Apply a full cover spray at popcorn stage and a second application at full bloom.
Coffee	Coffee Berry Disease ( <u>Collectotrichum coffeanum</u> )	2 - 2%	8 - 10%	Apply first spray after flowering and before onset of long rains and then at 21-28 day intervals until picking. Use higher rates when rainfall is heavy and disease pressure is high.

14 231

Bacterial Blight  
(Pseudomonas syringae)

2 - 2% 8 - 10%

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. Use higher rates when rainfall is heavy and disease pressure is high.

Leaf Rust  
(Hemileia vastatrix)

3/4 - 1 1/4 2% - 5 1/4

Apply before the onset of rain and then at 21 day intervals while the rains continue. Use higher rates when rainfall is heavy and disease pressure is high.

Leaf Rust -  
Brasil

4 2/3 - 7 1/3

Low density plantings.

9 1/3 - 10%

High density plantings.

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. Use high rates where disease pressure is heavy and rainfall high.

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Iron Spot  
(Cercospora coffeicola),  
Pink Disease

3/4 2%

Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly

	( <u>Corticium salmonicolor</u> )			intervals for 3 applications.
Filberts	Bacterial Blight	5½ - 8	21½ - 32	Apply as a post harvest spray. In seasons of heavy rainfall apply a second spray when three-fourths of the leaves have dropped. Add 1 pint of superior-type oil per 100 gallons of water.
	Eastern Filbert Blight	5½ - 8	21½ - 32	Apply as a dilute spray in adequate water for thorough coverage. Make initial application after harvest in October before heavy winter rains begin. The next application should be made in late February to early March followed by another application one month later. If desired, add 1 pint of a sticking agent or superior-type oil per 100 gallons of water.
M a n g o (FL)	Anthracnose	2%	10% - 13%	Apply monthly after fruit set until harvest.
Olive (CA)	Peacock Spot	2% - 4	10% - 16	Make first application before winter rains fall. A second application in early spring should be made if disease is severe. Apply the high rate for heavy disease pressure or when conditions favor such.
P e a c h , Nectarine	Leaf Curl, Coryneum Blight (Shot Hole)	2% - 5½	10% - 21½	Apply at leaf fall. Use the highest rate when rainfall is very heavy and disease pressure is high. May be used with agricultural spray oil.

Brown Rot, Blossom Blight      2% - 4      10% - 16

Full cover spray at pink bud. Application at this time affords some control of Leaf Curl and Coryneum Blight.

Bacterial Spot      1/2      1 1/2

Post bloom application applied at first and second cover sprays.

2%      10%

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 cover sprays.

Pear      Fire Blight      1/2      1 1/2

Apply at 5 day intervals throughout the bloom period.

Pseudomonas Blight      4 - 5 1/2      16 - 21 1/2

Apply before fall rains and again during dormancy before spring growth starts. Use the higher rate when disease pressure is high or when conditions favor development of such.

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NOTE: Excessive dosages may cause fruit russet.

Pecan      Shuck & Kernal Rot      2 - 4 Quarts

(phytophthora cactorum) and Zonate Leafspot (Cristulariella pyramidalis)

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. Use the higher rate and shorter interval if frequent rainfall occurs.

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Pistachio	Botrytis Blight, Botryosphaeria panicle and shoot blight, septoria leaf blight, late blight ( <u>Alternaria alternata</u> ) Coryneum		4 - 8Quarts	Make initial application at bud swell and repeat on a 14 - 28 day schedule as dictated by disease conditions. If disease conditions are severe, use the high rate and short spray interval.
Plum , Prune	Blight (Shot Hole)	2% - 5 1/2	10% - 21 1/2	Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.
	Brown Rot, Blossom Blight	2% - 4	10% - 16	Apply full cover application at pink, red or early white bud stage. Use the higher rate when disease pressure is heavy or conditions favor the development of such.
Walnut	Walnut Blight	2% - 4	10% - 16	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.

**VEGETABLES**

**Crop                      Disease                      Pints/Acre                      Use Instructions**

Beans (dry & green) Brown Spot, Halo Blight, Common Blight 1 1/2 - 4

Use the higher rate for more severe disease. 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 Sprout, Cabbage, Cauliflower, Collards Black Rot (Xanthomonas) & Black Leaf Spot (Alternaria) 2%

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.

Downy Mildew (Cabbage Only) 3/4 - 1 1/2

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.

Lettuce, Endive, Escrole Downy Mildew 1 1/2 - 2%

Begin treatment when disease first appears and repeat every 7 - 10 days as needed to suppress disease.

Cantaloupe, Honeydew, Muskmelon Downy Mildew 2%

Begin application when conditions are favorable for disease development and repeat at 5-7 day intervals as needed depending on disease severity.

Carrot Cercospora Leaf Spot 2%

Begin application when disease first threatens and repeat at 7-14 day intervals as needed depending on disease severity.

Celery Cercospora Early Blight, Septoria Late Blight, & Bacterial Blight 2%

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	2 - 2½	Apply weekly when plants begin to vine.
Eggplant (Except CA)	Alternaria Blight, Anthracnose, & Phomopsis	2%	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	2%	Begin when plants are 4-6 inches high and repeat at 7-10 day intervals as needed depending upon disease pressure.
Peas	Powdery Mildew	2 - 4	Begin applications when disease symptoms first appear and repeat at weekly intervals as needed. Use higher rate for more severe disease.
Peppers	Bacterial Spot	2% - 4	Begin applications when conditions first favor disease development and repeat at 5-10 day intervals as needed depending on disease severity. Use higher rates for severe disease.

P u m p k i n ,  
Squash      Powdery Mildew      2 - 4

Begin applications when plants are 3 weeks old or when disease symptoms first appear and repeat at 7 day intervals as needed to maintain control. Use the higher rates if disease is heavy or conditions favor such.

Spinach      Black Rot      8  
(Xanthomonas sp.)  
& Black Leaf Spot  
(Alternaria sp.)

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.

Downy Mildew      2 - 4

Apply at 7-10 day intervals. Use short interval and higher rates when conditions favor disease.

NOTE: Flecking may occur on Spinach leaves.

Tomato      Early & Late      2 3/4 - 4  
Blight

Begin when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity. Use higher rate for severe disease.

Bacterial Speck      2 3/4

Begin applications when disease first threatens and repeat at 10-30 day intervals or as needed depending on disease severity.

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Bacterial Spot, 2½ - 5½  
Anthracnose, Gray  
Leaf Mold,  
Septoria Leaf Spot

Begin applications when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity. Use higher rate for severe disease.

**NOTE:** May be combined with 1.1-1.6 quarts per acre of MANEX II or a mancozeb wp at an equivalent rate. When MANEX II or mancozeb is used in tank mixture with Kocide LF, do not apply within 5 days of harvest.

Watercress      Cercospora      2 Quarts  
leafspot

Begin application when plants are first established in the field, 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 at no less than 50 gallons of spray solution per acre.

Watermelon      Anthracnose      2½

Apply as soon as plants become established in the field and repeat at weekly intervals as needed depending upon disease severity.

Downy Mildew      2 - 4

Apply as soon as plants become established in the field and repeat at weekly intervals as needed depending upon disease severity. Use higher rates when conditions favor disease.

**VINES**

Crops	Disease	Pints/100 Gal	Pints/Acre	Use Instructions
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Grape	Black Rot, Powdery Mildew, Downy Mildew	1 1/2	2 1/2	Begin application at bud break with subsequent applications throughout the season depending upon disease severity.
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NOTE: Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara, and Rosettes. Either test for sensitivity or add 1-3 pounds of hydrated lime per pound of Kocide LF.

Hops	Downy Mildew	1 1/2	2 1/2	Make crown treatment after pruning, but before training. After training, additional treatments are needed at about 10 day intervals.
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NOTE: Discontinue use 2 weeks before harvest.

Kiwi	<u>Pseudomonas syringae.</u> <u>Erwinia herbicola.</u> <u>Pseudomonas fluorescens</u>	5 1/2	10 1/2	Apply in 200 gallons of water per acre. Make application on a monthly basis. A maximum of 3 applications may be made.
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MISCELLANEOUS

Crop	Disease	Rate/Acre	Use Instructions
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Atemoya	Anthracnose	3 Quarts	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.
Carambola	Anthracnose	6 Quarts	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.
Chives	Downy Mildew	2 Quarts	Begin applications when plants are established in the field. Repeat applications every 7-10 days as dictated by disease conditions. If disease pressure is high, use the shorter spray interval.

24 } 31

Douglas Fir

Rhabdocline needlecast

2 Quarts

Begin applications at bud break and repeat at 3-4 week intervals. Apply in a tank mix with another registered pesticide if moderate to severe disease pressure is present.

Ginseng

Alternaria Leaf and Stem Blight

2.6 Quarts

Use as a tank mix with 2 pounds Rovral® 50W in 100 gallons of water. Begin K O C I D E - Rovral 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, a p p l y fungicides at least 8 hours before the rain, giving the fungicides time to dry on the plants. Use of a spreader-sticker or sticker is advised.

**N O T E :**  
Alternaria Leaf and Stem Blight is most severe in humid conditions such as those found in the dense canopies to 2-, 3- 4-year old Ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus w h i c h distributes the fungicide throughout the canopy.

Guava

Anthracnose,  
Red Algae

3 Quarts

Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

Litchi

Anthracnose

3 Quarts

Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

Live Oak  
(Texas &  
Florida)

Ball Moss

6 Quarts\*

Apply 6 lbs per 100 gallons\* of water, in the spring when ball moss is actively growing, using 1.5 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. A second application may be required after 12

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months.

**N O T E :**  
KOCIDE 101  
m a y b e  
injurious to  
ornamentals  
grown under  
Live Oaks.  
This product  
m a y b e  
reactive on  
metal and  
m a s o n r y  
surfaces such  
as galvanized  
r o o f i n g .  
Avoid contact  
with metal  
surfaces. Do  
not spray on  
cars, houses,  
l a w n  
furniture, etc.

Macadamia

Anthracnose

6 Quarts

Initiate sprays  
at first sign of  
flowering and  
repeat on a  
w e e k l y  
schedule until  
just before  
harvest. Apply  
in sufficient  
water for  
t h o r o u g h  
coverage.

Phytophthora Blight 4.5-6 Quarts  
(P. capsici),  
Raceme Blight (Botrytis  
cinerea)

Apply during  
r a c e m e  
development  
and bloom  
periods. Apply  
in sufficient  
water for  
t h o r o u g h  
coverage.

Mamey Sapote

Anthracnose,  
Algal Leaf Spot

6-8 Quarts

Apply when  
conditions favor  
d i s e a s e  
development.  
Repeat on 14-  
30 day schedule  
as disease  
severity and  
environmental  
conditions  
dictate.

Parsley

Bacterial blight 3 Quarts  
(Pseudomonas sp.)

B e g i n  
applications  
when plants are  
first established  
in the field and  
repeat at 5-7  
days intervals  
depending upon  
disease severity  
a n d  
environmental  
conditions

Passion Fruit

Anthracnose

6 Quarts

Make initial  
application just  
b e f o r e  
flowering and  
repeat on a  
w e e k l y  
schedule until  
just before  
harvest. Apply  
in sufficient  
water for  
t h o r o u g h

**BEST AVAILABLE COPY**

Sugar Apple (Annona)	Anthracnose	12 Quarts	coverage.  Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.
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Sycamore	Anthracnose	2-3 Quarts	Apply as a full cover spray. Apply in 100 gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7-10 days later at 10% leaf expansion.
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### TURFGRASS

To control algae in turfgrass, apply 2 pints KOCIDE LF per 1,000 square feet in 5 gallons of water. KOCIDE LF may be used alone or in combination with other registered 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 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.

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### ORNAMENTALS

**Notice to User:** Plant sensitivities to Kocide LF have been found to be acceptable in specific genera and species listed on this label under sconditions tested; however, phytotoxicity may occur with varying conditions. 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 LF. Neither the manufacturer nor seller has determined whether or not Kocide LF can be safely used on ornamental or nursery plants not listed on this label or under all conditions. The user should determine if Kocide LF can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e. bedding plants, foliage, etc., and observe for 7-10 days for symptoms of phytotoxicity prior to commercial use.

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

For control of disease on ornamentals in Greenhouses, Field and Nurseries - Apply as a thorough coverage spray using 1 1/3 pints of Kocide LF per 100 gallons of water. 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.

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

Crop	Disease
Aralia	Xanthomonas & Cercospora Leaf Spots, Alternaria
Azalea*	Cercospora Leaf Spot, Botrytis Blight, Phytophthora dieback, Powdery Mildew
Begonia	Xanthomonas Leaf Spot
Bulbs (Easter Lily, Tulip, Gladiolus)	Anthrachnose, Botrytis Blight
Carnation*	Alternaria Blight, Pseudomonas Leaf Spot, Botrytis Blight
Chrysanthemum*	Septoria Leaf Spot, Botrytis Blight
Cotoneaster	Botrytis Blight
Euonymus	Botrytis Blight, Anthracnose
Ivy*	Xanthomonas Leaf Spot
Pachysandra	Volutella Leaf Blight

<b>Periwinkle</b>	<b>Phomopsis Stem Blight</b>
<b>Philodendron</b>	<b>Bacterial Leaf Spot</b>
<b>Pyracantha</b>	<b>Fireblight, Scab</b>
<b>Rose*</b>	<b>Powdery Mildew, Black Spot</b>
<b>Yucca (Adam's needle)</b>	<b>Cercospora and Septoria Leaf Spot</b>

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

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

**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. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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