



U.S. ENVIRONMENTAL PROTECTION  
AGENCY

Office of Pesticide Programs  
Registration Division (7504P)  
Ariel Rios Building  
1200 Pennsylvania Ave., NW  
Washington, D.C. 20460

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

EPA Reg. Number:

1812-338

Date of Issuance:

AUG 19 2010

Term of Issuance:

Name of Pesticide Product:

Kocide LF

Name and Address of Registrant (include ZIP Code):

Griffin Corp.  
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 reregistered in accordance with FIFRA provided that you:

1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.

Signature of Approving Official:

*Erik Kraft*

Tony Kish  
Product Manager 22  
Fungicide Branch  
Registration Division (7504P)

Date:

AUG 19 2010

2) Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

3) You may delete "Probable mucosal damage may contraindicate the use of gastric lavage".

4) Add "Harmful if inhaled" to the Hazards to Humans and Domestic Animals section.

5) Add "exists" after "washables" on page 1.

6) Change "inert ingredients" to "other ingredients".

7) Change the Environmental Hazards to "This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas".

8) Add the following to the Agricultural Use Requirements box:

"For at least seven days following the application of copper-containing products in greenhouses:  
-at least one container or station designed specifically for flushing eyes is available in operating condition with the WPS-required decontamination supplies for workers entering the area treated with copper-containing products, -workers are informed orally, in a manner they can understand:  
-that residues in the treated area may be highly irritating to their eyes, -that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes,  
-that if they do get residues in their eyes, they should immediately flush their eyes with the eye flush container for eye flush station that is located with the decontamination supplies, and  
-how to operate the eye flush container or eye flush station."

9) Add the following spray draft language:

**"SPRAY DRIFT MANAGEMENT**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature,

EPA Reg. 1012-338

Page 3

relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

#### **Droplet Size**

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### **Wind Speed**

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

#### **Temperature Inversions**

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### **Other State and Local Requirements**

Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

#### **Equipment**

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### *Additional requirements for aerial applications:*

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

#### *Additional requirements for ground boom application:*

Do not apply with a nozzle height greater than 4 feet above the crop canopy.”

10) Update the Container Disposal language to comply with PR Notice 2007-4.

4 8 14

11) Change "General Instructions" to "Product Instructions". Change "Not recommended for those geographical areas" to "Not to be used for those geographical areas". Delete "general" from "general chemigation instructions".

12) To the Ornamentals add "Maximum application rate is 2.0 lbs. metallic copper per acre. Maximum annual total application rate is 20.0 lbs. metallic copper per acre per year. The minimum retreatment interval is 7 days." To Easter Lilies add "Maximum application rate is 2.5 lbs. metallic copper per acre. Maximum annual application rate is 75 lbs. metallic copper per acre per year. The minimum retreatment interval is 7 days. Do not apply any additional copper pesticide to this land for 36 months." The text "One level tablespoon of Kocide LF per 1,000 square feet is equivalent to 1 pint per acre" must be changed to "one level tablespoon of Kocide LF per 1,000 square feet is equivalent to 0.26 lbs. metallic copper per acre".

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this letter or the next round of printing must bear the new revised label. If these EPA conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these EPA Reg. conditions. This label supersedes all other previously accepted labels. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Enclosure: Product Chemistry Review  
Acute Toxicology Review

5 8 14



ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
AUG 19 2010  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
Registered under EPA Reg. No.  
1812-332

# Kocide® LF

## fungicide/bactericide

Active Ingredients	By Weight
Copper Hydroxide* (CAS No. 20427-59-2)	23%
Inert Ingredients	77%
TOTAL	100%

(\*Metallic Copper Equivalent 15% or 1.6 Pounds Metallic Copper Per Gallon)

(2.4 Pounds Copper Hydroxide Per Gallon)

EPA Reg. No. 1812-338

EPA Est. No.

NET CONTENTS: \_\_\_\_\_

### KEEP OUT OF REACH OF CHILDREN

## CAUTION

### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

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

See Label for Additional Precautions and Directions for use.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## CAUTION

Causes moderate eye injury. Avoid breathing vapor or spray mist. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing.

### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection sheet.

**Mixers, loaders, applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber
- 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Wash the outside of gloves before removing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff.

This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-waters or rinsate.

Certain water conditions including low pH ( $\leq 6.5$ ), low dissolved organic carbon (DOC) levels (3.0 mg/L or lower), and "soft" waters (i.e., alkalinity less than 50 mg/L), increases the potential acute toxicity to non-target aquatic organisms.

Drift and runoff may be hazardous to aquatic organisms in waters adjacent to treated areas.

## 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 interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours without required PPE.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber
- 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.

Do not enter or allow others to enter until sprays have dried.

## GENERAL INSTRUCTIONS

KOCIDE® LF 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® LF 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® 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.

Consult the KOCIDE® LF label for specific rates and timing of application by crop. Where application rates and intervals are provided in a range (e.g. 6 to 16 pints and 7 to 10 days), the higher rates and shorter spray 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® LF **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® LF 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® LF 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 waste associated with its use can be properly handled. Agricultural chemicals are often reactive with the materials used in the construction of application equipment, such as aluminum, rubber and some synthetic materials. This factor should be taken into consideration when selecting proper application equipment. It is necessary that all application equipment be 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 the 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 or contact your chemical supplier. Observe all precautions and limitations on the labels of all products used in mixtures.

## FROST INJURY PROTECTION

### BACTERIAL ICE NUCLEATION INHIBITOR

Application of KOCIDE® LF made to all crops listed on this label at rates and stages of growth indicated on this label, at least 24 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola*, and *Pseudomonas fluorescens*) and may therefore provide some protection against light frost. Not recommended for those geographical areas where weather conditions favor severe frost.

## CROP CLASSIFICATION

ORNAMENTALS: Species as listed.

Minimum Recommended Spray Volume (Gallons Per Acre)

	When Applying KOCIDE® LF		
	Aerial	Ground	
		Dilute	Concentrate
Ornamentals	10	100	50

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.

**ORNAMENTALS**

Use KOCIDE® LF 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 1/3 to 5 pints per acre of KOCIDE® LF. When new growth is present, apply as a thorough cover spray at rates ranging from 1 1/3 to 4 pints per acre of KOCIDE® LF. **One level tablespoon of KOCIDE® LF per 1,000 square feet is equivalent to 1 pint per acre.** Begin application at first sign of disease and repeat at 7 to 14 day intervals or as needed; use the higher rates and shorter spray intervals during periods of frequent rains or when severe disease conditions persist. Maximum seasonal rate per acre is 100 pints.

KOCIDE® LF 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® LF 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® 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. 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 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.

<b>Crop</b>	<b>Scientific Name</b>	<b>Disease</b>
Aglaonema*	<i>Aglaonema</i> spp.	Bacterial Leaf Spot
Althea (Rose of Sharon)	<i>Hibiscus syriacus</i>	Bacterial Leaf Spot
Andromeda, Japanese*	<i>Pieris japonica</i>	Leaf Spots, Twig Blight
Aralia	<i>Dizygotheca elegantissima</i>	Alternaria, Cercospora Leaf Spot, Xanthomonas Leaf Spot
Arborvitae	<i>Thuja</i> spp.	Alternaria Twig Blight, Cercospora Leaf Blight
Aster*	<i>Aster</i> spp.	Downy Mildew, Leaf Spots
Azalea 1/	<i>Rhododendron</i> spp.	Botrytis Blight, Cercospora Leaf Spot, Phytophthora Dieback, Powdery Mildew
Beech*	<i>Fagus</i> spp.	Leaf Spots
Begonia	<i>Begonia semperflorens</i>	Bacterial Leaf Spot ( <i>Erwinia</i> spp., <i>Pseudomonas</i> spp., <i>Xanthomonas</i> spp.)
Bougainvillea	<i>Bougainvillea spectabilis</i>	Anthrachnose, Bacterial Leaf Spot
Boxwood*	<i>Buxus</i> spp.	Leaf Spots
Camellia	<i>Camellia japonica</i> , <i>C. sasanqua</i>	Anthrachnose, Bacterial Leaf Spot
Camphor Tree	<i>Cinnamomum camphora</i>	Pseudomonas Leaf Spot
Canna	<i>Canna</i> spp.	Pseudomonas Leaf Spot
Carnation 1/	<i>Dianthus</i> spp.	Alternaria Blight, Botrytis Blight, Pseudomonas Leaf Spot
Cedar*	<i>Cedrus</i> spp.	Tip Blight
Cherry, Nanking*	<i>Prunus tomentosa</i>	Bacterial Leaf Spot
Chinese Tallow Tree	<i>Sapium sebiferum</i>	Bacterial Leaf Spot ( <i>Pseudomonas</i> spp., <i>Xanthomonas</i> spp.)
Chrysanthemum 1/	<i>Chrysanthemum morifolium</i>	Botrytis Blight, Pseudomonas Leaf Spot, Septoria Leaf Spot
Cotoneaster	<i>Cotoneaster</i> spp.	Botrytis Blight
Crabapple*	<i>Malus</i> spp.	Fire Blight
Cypress*	<i>Cupressus</i> spp.	Twig Blight
Dahlia	<i>Dahlia pinnata</i>	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Delphinium*	<i>Delphinium</i> spp.	Leaf Spots
Dianthus	<i>Dianthus</i> spp.	Bacterial Soft Rot, Bacterial Spot
Dogwood, Flowering	<i>Cornus florida</i>	Anthrachnose
Dogwood, Kousa*	<i>Cornus kousa</i>	Fungal Leaf Spots
Douglas Fir	<i>Pseudotsuga menziesii</i>	Rhabdocline Needlecast



ORNAMENTALS (cont'd)		
Crop	Scientific Name	Disease
Dracaena*	<i>Dracaena marginata</i>	Bacterial Leaf Spot
Dumb Cane*	<i>Dieffenbachia</i> spp.	Bacterial Leaf Spot
Dusty Miller	<i>Senecio cineraria</i>	Bacterial Leaf Spot ( <i>Pseudomonas cichorii</i> )
Echinacea	<i>Echinacea</i> spp.	Bacterial Leaf Spot ( <i>Pseudomonas cichorii</i> )
Elm, Chinese	<i>Ulmus parvifolia</i>	Xanthomonas Leaf Spot
Euonymus	<i>Euonymus</i> spp.	Anthraxnose, Botrytis Blight
Fern Boston*	<i>Nephrolepis exaltata</i>	Bacterial Leaf Spot
Fern, Holly	<i>Cyrtomium falcatum</i>	<i>Pseudomonas</i> Leaf Spot
Fig, Weeping*	<i>Ficus benamina</i>	Bacterial Leaf Spot
Filbert (Ornamental)*	<i>Corylus</i> spp.	Filbert Blight
Fir*	<i>Abies</i> spp.	Needlecasts
Gardenia	<i>Gardenia jasminoides</i>	Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf Spot
Geranium	<i>Pelargonium</i> spp.	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Gladiola	<i>Gladiolus</i> spp.	Alternaria Leaf Spot, Anthracnose, Bacterial Leaf Blight, Botrytis Gray Mold
Golden Rain Tree	<i>Koelreuteria paniculata</i>	Bacterial Leaf Spot
Grape Ivy*	<i>Cissus</i> spp.	Bacterial Leaf Spot
Hawthorn*	<i>Crataegus</i> spp.	Fire Blight
Hibiscus 4/	<i>Hibiscus</i> spp.	Bacterial Leaf Spot
Holly*	<i>Ilex</i> spp.	Bacterial Blight, Leaf Spots
Honeylocust*	<i>Gleditsia triacanthos</i>	Bacterial Leaf Spot
Honeysuckle, Tatarian*	<i>Lonicera tatarica</i>	Bacterial Leaf Spot
Impatiens	<i>Impatiens sallerana</i>	Bacterial Leaf Spot
Indian Hawthorn 5/	<i>Raphiolepis indica</i>	Anthraxnose, Entomosporium Leaf Spot
Iris 6/*	<i>Iris</i> spp.	Bacterial Leaf Spot
Ivy (English, Algerian) 1/	<i>Hedera helix, H. canariensis</i>	Xanthomonas Leaf Spot
Ixora	<i>Ixora coccinea</i>	Xanthomonas Leaf Spot
Juniper	<i>Juniperus</i> spp.	Anthraxnose, Phomopsis Twig Dieback*
Lantana	<i>Lantana camera</i>	Bacterial Leaf Spot
Leyland Cypress*	<i>X Cupressocyparis leylandii</i>	Cercospora Needle Blight
Lilac	<i>Syringa</i> spp.	Cercospora Leaf Spot, Pseudomonas Blight*
Lily, Easter 2/	<i>Lilium longiflorum</i>	Botrytis Blight
Linden*	<i>Tilia</i> spp.	Anthraxnose, Leaf Blight
Loblolly Bay	<i>Gordonia lasianthus</i>	Anthraxnose
Loquat	<i>Eriobotrya japonica</i>	<i>Colletotrichum</i> spp., <i>Entomosporium maculata</i>
Magnolia (Southern)	<i>Magnolia grandiflora</i>	Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot
Magnolia (Sweet Bay)	<i>Magnolia virginiana</i>	Anthraxnose
Magnolia (Oriental)	<i>Magnolia soulangiana</i>	Bacterial Leaf Spot
Mandevilla	<i>Mandevilla</i> spp.	Anthraxnose
Maple*	<i>Acer</i> spp.	<i>Pseudomonas</i> Leaf Blight
Marigold	<i>Tagetes</i> spp.	Alternaria Leaf Spot, Botrytis Leaf Rot, Cercospora Leaf Spot, Flower Rot
Mountain-Ash*	<i>Sorbus</i> spp.	Fire Blight
Mulberry, Contorted*	<i>Morus bombycis</i>	Bacterial Leaf Spot

ORNAMENTALS (cont'd)		
Crop	Scientific Name	Disease
Mulberry, Weeping	<i>Morus alba</i>	Bacterial Leaf Spot
Narcissus*	<i>Narcissus</i> spp.	Leaf Blight
Nephtytis*	<i>Syngonium podophyllum</i>	Bacterial Leaf Spot
Oak*	<i>Quercus</i> spp.	Leaf Spots
Oak, Laurel	<i>Quercus laurifolia</i>	Algal Leaf Spot ( <i>Cephaleuros virescens</i> )
Oleander	<i>Nerium oleander</i>	Bacterial Leaf Spot, Fungal Leaf Spot
Oregon Grapeholly*	<i>Mahonia aquifolium</i>	Leaf Spots
Pachysandra	<i>Pachysandra procumbens</i>	Volutella Leaf Blight
Palm, Date	<i>Phoenix canariensis</i>	Pestalotia Leaf Spot
Palm, European Fan	<i>Chamaerops humilis</i>	Pestalotia Leaf Spot
Palm, Parlor*	<i>Chamaedorea elegans</i>	Bacterial Leaf Spot
Palm, Queen	<i>Arecastrum romanzoffianum</i>	Exosporium Leaf Spot, Phytophthora Bud Rot
Palm, Washingtonia	<i>Washingtonia robusta</i>	Pestalotia Leaf Spot
Peach (Flowering) 3/*	<i>Prunus</i> spp.	Bacterial Blast, Brown Rot, Fire Blight
Pear (Flowering)	<i>Pyrus calleryana</i>	Fire Blight, Leaf Spots
Pentas (Egyptian Star)	<i>Pentas</i> spp.	Bacterial Leaf Spot ( <i>Pseudomonas</i> spp. *, <i>Xanthomonas</i> spp.)
Peony	<i>Paeonia</i> spp.	Botrytis Blight
Periwinkle	<i>Catharanthus roseus</i> , <i>Vinca</i> spp.	Phomopsis Stem Blight
Philodendron	<i>Philodendron selloum</i>	Bacterial Leaf Spot
Phlox	<i>Phlox</i> spp.	Alternaria Leaf Spot
Photinia (Red Tip)	<i>Photinia x fraseri</i> , <i>P. glabra</i>	Anthrachnose, Entomosporium Leaf Spot
Pine*	<i>Pinus</i> spp.	Needlecasts
Pistachio	<i>Pistacia chinensis</i>	Anthrachnose
Plantain Lily 6/	<i>Hosta</i> spp.	Bacterial Leaf Spot
Plum (Flowering) 3/*	<i>Prunus</i> spp.	Bacterial Blast, Brown Rot, Fire Blight
Pothos*	<i>Scindapsus</i> spp.	Bacterial Leaf Spot
Powder Puff Plant	<i>Calliandra</i> spp.	Bacterial Leaf Spot
Pyracantha	<i>Pyracantha</i> spp.	Fire Blight, Scab
Rhododendron	<i>Rhododendron</i> spp.	Alternaria Flower Spot
Rose 1/	<i>Rosa</i> spp.	Black Spot, Powdery Mildew
Snapdragon	<i>Antirrhinum majus</i>	Anthrachnose, Dieback, Downy Mildew
Spathe Flower*	<i>Spathiphyllum</i> spp.	Bacterial Leaf Spot
Spirea*	<i>Spiraea</i> spp.	Fire Blight
Spruce*	<i>Picea</i> spp.	Needlecasts
Sycamore	<i>Platanus</i> spp.	Anthrachnose, Leaf Spots*
Tulip	<i>Tulipa</i> spp.	Anthrachnose, Botrytis Blight
Umbrella Tree*	<i>Schefflera</i> spp.	Bacterial Leaf Spot
Verbena	<i>Verbena</i> spp.	Xanthomonas Leaf Spot
Viburnum	<i>Viburnum odoratissimum</i> , <i>V. plicatum</i> , <i>V. suspensum</i>	Anthrachnose
Viola (Pansy, Violet)	<i>Viola</i> spp.	Downy Mildew
Willow	<i>Salix</i> spp.	Anthrachnose
Yew*	<i>Taxus</i> spp.	Needle Blight
Yucca (Adam's Needle)	<i>Yucca</i> spp.	Cercospora Leaf Spot, Septoria Leaf Spot
Zinnia*	<i>Zinnia</i> spp.	Leaf Spots

\*Except California

11 8 14

**ORNAMENTALS (cont'd)**

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® LF at 4 to 6 2/3 pints per acre.

3/ Apply dormant through bloom only.

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

5/ For Indian Hawthorn use 2 2/3 to 5 1/3 pints per acre.

6/ Some cultivars may be sensitive to KOCIDE® LF.

**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 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 in the crop 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® LF has been cleared from the last sprinkler head.

## 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 if proper application equipment is available and if waste associated with its use can be properly handled. Agricultural chemicals are often reactive with the materials used in the construction of application equipment, such as aluminum, rubber and some synthetic materials. This factor should be taken into consideration when selecting proper application equipment. It is necessary that all application equipment be thoroughly flushed with clean water after each day's use.

When mixing, fill the 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 precautions and limitations on the labels of all products used in mixtures. Agitation of the mixture in the nurse tank is recommended.

KOCIDE® LF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set irrigation systems. Shut off injection equipment after treatment and continue to operate irrigation system until KOCIDE® LF 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 if proper application equipment is available and if waste associated with its use can be properly handled. Agricultural chemicals are often reactive with the materials used in the construction of application equipment, such as aluminum, rubber and some synthetic materials. This factor should be taken into consideration when selecting proper application equipment. It is necessary that all application equipment be thoroughly flushed with clean water after each day's use.

When mixing, fill the nurse tank half full with water. Add KOCIDE® LF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. 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® LF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set irrigation systems. Shut off injection equipment after treatment and continue to operate irrigation system until KOCIDE® LF has been cleared from the last sprinkler head.

#### **STORAGE AND DISPOSAL**

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

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

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. 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.

KOCIDE® is a registered trademark of E. I. DuPont de Nemours & Co. Inc.

"Aliette" is a registered trademark of Bayer CropScience

**D - 1317 111408**

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

**LIMITATION OF WARRANTY AND LIABILITY**

NOTICE: Read this Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY), WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

To the extent consistent with applicable law that allows such requirement, DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise, or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

For product information call: 1-888-6-DUPONT

Internet address: <http://cropprotection.dupont.com/>

© 2005-2008 E. I. du Pont de Nemours and Company, Wilmington, Delaware 19898.

All rights reserved.