Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD 2015-2017 LIC. NO.
8033.47

Kocide® 3000

FUNGICIDE/BACTERICIDE

RECEIVED
APR 30 2015
Pesticides Branch

Dry Flowable

Active Ingredients	***By Weight***
Copper Hydroxide* (CAS No. 20427-59-2)	46.1%
Inert Ingredients	53.9%
TOTAL	100.0%

(* Metallic Copper Equivalent 30%)

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Label for Additional Precautions and Directions for Use.

Nonrefillable Container
Net: 4 lb. and 10 lb.

EPA Reg. No. 91411-2-70051
EPA Est. No. 352-TX-003

Lot No.

Manufactured for:
Certis USA, L.L.C.
9145 Guilford Road Suite 175
Columbia, MD 21046

CERTIS

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: 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 1-800-255-3924 for emergency medical treatment information.

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if swallowed, absorbed through the skin or inhaled. Do not get in eyes, skin, or on clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material, such as natural rubber, selection Category A

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 exist, 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.
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 State or Tribal 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:
- 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

For Greenhouse Uses ONLY:
The 48 hour restricted entry interval (REI) may be reduced to 24 hour REI, provided that the following conditions are met:
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 the 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 or eye flush station that is located with the decontamination supplies, and
- how to operate the eye flush container or eye flush station.

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® 3000 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® 3000 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® 3000. 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® 3000 label for specific rates and timing of application by crop. Where application rates and intervals are provided in a range (e.g. 4 to 12 pounds 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

The Pre-Harvest Interval (PHI) for KOCIDE® 3000 is 0-days unless noted.

- If KOCIDE® 3000 is applied in a spray solution having a pH of less than 6.5, phytotoxicity may occur.
- Do not tank mix KOCIDE® 3000 with "Aliette" fungicide for use on any registered crops 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. Do not exceed label dosage rates. 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® 3000 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.
- 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.
- 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). Do not apply this product through any other type of irrigation system. In California, do not apply in systems which contain aluminum parts or components.
- 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® 3000 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.

CROP CLASSIFICATION

CITRUS: Grapefruit, Kumquat, Lemon, Lime, Orange, Pummelo, Tangelo and Tangerine.
CONIFERS: Douglas Fir, Fir, Juniper, Leyland Cypress, Pine and Spruce.
FIELD CROPS: Alfalfa, Barley, Corn, Oats, Peanut, Potato, Soybean*, Sugar Beet and Wheat.
SMALL FRUITS: Blackberry, Blueberry, Cranberry, Currant, Gooseberry, Raspberry and Strawberry.
TREE CROPS: Almond, Apple, Apricot, Avocado, Banana/Plantain, Cacao, Cherry, Coffee, Filbert, Mango, Nectarine, Olive, Peach, Pear, Pecan, Pistachio, Plum, Prune, Quince and Walnut.
VEGETABLES: Bean, Beet, Beet Greens, Broccoli, Brussels Sprout, Cabbage, Chinese Cabbage, Cantaloupe, Carrot, Cauliflower, Celeriac, Celery, Cucumber, Eggplant, Greens (Collard, Mustard and Turnip), Honeydew, Kale, Kohlrabi, Lettuce†, Muskmelon, Okra, Onion/Garlic/Leek, Pea, Pepper, Pumpkin, Spinach, Squash, Tomato, Watercress and Watermelon.
VINES: Grape, Hops and Kiwi.
MISCELLANEOUS: Atemoya, Carambola, Chives, Dill, Ginseng, Guava, Litchi, Live Oak*, Macadamia, Mamey Sapote, Papaya, Parsley, Passion Fruit, Sugar Apple and Sycamore.
GREENHOUSE AND SHADEHOUSE CROPS: KOCIDE® 3000 may be used in greenhouses and shadehouses to control diseases on any crop on this label where physiology allows greenhouse or shadehouse culture. While specific directions are presented for Citrus, Cucumber, Eggplant, Pepper and Tomato; general use may occur for any crop on this label where physiology allows greenhouse or shadehouse culture. Consequently; injuries arising from the use of KOCIDE® 3000 on these types of greenhouse and shadehouse crops are the responsibility of the user.
*Not registered for use in California
†Not registered for use in California and Arizona

Minimum Recommended Spray Volume (Gallons Per Acre) When Applying KOCIDE® 3000

	Ground		
	Aerial	**Dilute**	**Concentrate**
Citrus	10	800	100**
Conifers	10	100	30
Field Crops	3	20	3
Small Fruits	5	150	50
Tree Crops	10	400	50
Vegetables	3	20	3
Vines	5	150	50
Miscellaneous	10	150	50

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

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

FROST INJURY PROTECTION

BACTERIAL ICE NUCLEATION INHIBITOR

Application of KOCIDE® 3000 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.

CITRUS

KOCIDE® 3000 may be mixed with dry foliar nutritionals (micronutrients) to create "Shot Bag" mixes to meet the various nutritional requirements of citrus and provide disease protection as described on this label. KOCIDE® 3000 per acre rates in these mixes must not exceed the maximum recommended labeled rates for disease control.
Adding foliar nutritionals or other products to spray mixtures containing KOCIDE® 3000 and applying to citrus during the post bloom period when young fruit are present may result in spray burn.

Disease	Application Rate/Acre	Maximum Seasonal Rate/Acre	Use Instructions
Algal Spot, Melanose, Scab	1.75-5 lbs.	42 lbs.	Apply as pre-bloom and post-bloom sprays. Use the higher rates when conditions favor disease. Minimum retreatment interval is 7 days.
Greasy Spot, Pink Pitting	0.75-2.5 lbs.	42 lbs.	Apply in summer on expanded new flush. Repeat on subsequent flushes where disease pressure is severe. Use the higher rates when conditions favor disease. Minimum retreatment interval is 7 days.
Alternaria Brown Spot	1.75-3.5 lbs.	42 lbs.	On susceptible varieties apply when the first spring flush appears and each flush thereafter. Application to fruit should start after two thirds of the petals have fallen and be repeated on a 7 to 21 day schedule if needed. Use the higher rates when conditions favor disease.
Phytophthora Brown Rot, Septoria Spot	1.75-3.5 lbs.	42 lbs.	Begin application in fall before or just after the first rain and continue if needed. For Brown Rot only, apply to skirts of trees to a height of at least 4 feet. For control of Septoria Spot or where fruit have already been infected with Brown Rot, apply to entire tree. Apply also to bare ground one foot beyond skirt. Use the higher rates when conditions favor disease. Minimum retreatment interval is 7 days. **NOTE:** In California, in areas subject to copper injury, add 1/3 to 1 pound of high quality lime per pound of KOCIDE® 3000 .
Phytophthora Foot Rot	0.5 lb.	42 lbs.	Mix with 1 quart of water, "Tre-Hold" or latex paint. Paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prior to summer rains and/or in the fall prior to wrapping trees for freeze protection. Treatment serves as protection for up to 1 year, but does not cure existing infections. **NOTE:** Areas where microjet or low volume irrigation hit the tree trunk may require retreatment due to wash off.
Citrus Canker (suppression)	1 - 2.5 lbs.	42 lbs.	Spray flushes 7 to 14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications will be dependent upon disease pressure. Under heavy pressure, each flush of new growth should be sprayed. Minimum retreatment interval is 7 days.
Black Spot*	1 - 3 lbs.	42 lbs.	Begin treatment prior to or when disease first appears and repeat every 7 to 21 days if needed. Use the higher rates and shorter spray intervals when conditions favor disease. Minimum retreatment interval is 7 days.

NOTE: Phytotoxicity may occur on young tender flush when KOCIDE® 3000 is applied to citrus seedlings grown in greenhouses or shadehouses.

*Not registered for use in California.

CITRUS
Field Nursery Grown

To control Melanose, Scab, Pink Pitting, Greasy Spot, Brown Rot and for suppression of Citrus Canker, apply 1.75 to 3.5 pounds of KOCIDE® 3000 per acre. Apply KOCIDE® 3000 at 28 day intervals if needed depending on disease severity.

FIELD CROPS				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Alfalfa	Cercospora Leaf Spot, Leptosphaerulina Leaf Spot	0.75 lbs	3.7 lbs.	Apply 10 to 14 days before each harvest or earlier if disease threatens. Repeat every 30 days if needed. **NOTE**: Spray injury may occur with sensitive varieties such as Lahontan.
Corn (Field Corn, Popcorn, Seed Corn, Sweet Corn)	Bacterial Stalk Rot	0.5-1.75 lbs.	14 lbs.	Begin treatment when disease first appears and repeat every 7 to 10 days if needed. Use the higher rates and shorter spray intervals when conditions favor disease.
Peanut	Cercospora Leaf Spot	.75-1.25 lbs.	15.8 lbs.	Begin spraying at 35 to 40 days after planting or when disease symptoms first appear and repeat at 7 to 14 day intervals if needed. Reduce sprays to 7 day intervals during humid weather. Use the higher rates when conditions favor disease. Flowable sulfur may be added.
Potato	Early Blight, Late Blight	0.5-1.75 lbs.	83.3 lbs.	Apply 0.5 to 1.75 lbs. at 5 to 10 day intervals if needed starting when plants are 2 to 6 inches high in locations where disease is light. Apply up to 1.75 pounds per acre when disease is more severe. Under conditions of severe disease, control with KOCIDE® 3000 will be improved by tank mixing with other compatible fungicides registered for use on potatoes. Read and follow all label instructions of tank mix partners.
Soybean*	Bacterial Blight, Downy Mildew	0.75 - 1.5 lbs.	15.8 lbs.	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 14 day schedule if needed depending on environmental conditions. Use the higher rates for more severe disease.
Sugar Beet	Cercospora Leaf Spot	0.75-2.0 lbs.	26.2 lbs.	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals if needed. Use the higher rates when conditions favor disease. Addition of a spreader/sticker is recommended.
Wheat, Barley, Oats	Fusarium Head Blight Suppression*, Helminthosporium Spot Blotch, Powdery Mildew Suppression, Stagonospora Leaf and Glume Blotch, Stem Rust*	0.5-0.75 lbs.	3.5 lbs.	Make applications for early season disease control through heading. Minimum retreatment interval is 10-days. Use higher rates when conditions favor disease. Addition of adjuvants is recommended.

*Not registered for use in California.

SMALL FRUITS				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Blackberry (Aurora, Boysen, Cascade, Chehalem, Logan, Marion, Santiam, Thornless Evergreen)	Anthracnose, Cane Spot, Leaf Spot, Pseudomonas Blight, Purple Blotch, Yellow Rust	1.75 lbs.	33.3 lbs.	Make fall application after harvest. Apply delayed dormant spray after pruning/training in the spring. If needed, agricultural-type spray oil may be added.
	Anthracnose, Cane Spot, Leaf Spot, Purple Blotch, Yellow Rust	0.75 lbs.	33.3 lbs.	Apply when leaf buds begin to open and repeat when flower buds show white. Repeat on a 7 day interval if needed. If needed, agricultural-type spray oil may be added. **NOTE**: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.
Blueberry	Bacterial Canker	1.75-3.5 lbs.	28 lbs.	Make first application before fall rains and a second application 4 weeks later. Use the higher rates when conditions favor disease.
	Fruit Rot, Phomopsis Twig Blight	1.0-2.25 lbs.	28 lbs.	Dormant Application: Begin applications when bloom buds begin to swell. Make additional applications at 7 to 14 day intervals if needed before blooms open.
Cranberry	Fruit Rot	3.5 lbs.	42 lbs.	Make first application in late bloom. Apply one or two additional applications at 7 to 14 day intervals if needed depending on disease severity.
	Rose Bloom	3.5 lbs.	42 lbs.	Apply three sprays on 7 to 14 day schedule if needed as soon as symptoms are observed.
	Bacterial Stem Canker	3.5 lbs.	42 lbs.	Apply post harvest and again in spring at bud swell. Apply one or two additional applications at 7 to 14 day intervals if needed depending on disease severity.
	Leaf Blight, Red Leaf Spot, Stem Blight, Tip Blight (*Monilinia*)	3.5 lbs.	42 lbs.	Apply delayed dormant spray in the spring. Repeat at 7 to 14 day intervals if needed through pre-bloom.
Currant, Gooseberry	Anthracnose, Leaf Spot	4.25 lbs.	53.3 lbs.	Make initial application after first leaves have expanded. Continue on a 10 to 14 day schedule if needed during wet conditions in the spring. Make an additional application after harvest.
Raspberry	Anthracnose, Cane Spot, Leaf Spot, Pseudomonas Blight, Purple Blotch, Yellow Rust	1.75 lbs.	33.3 lbs.	Make fall application after harvest. Apply delayed dormant spray after training in the spring. If needed, agricultural-type spray oil may be added.
	Anthracnose, Cane Spot, Leaf Spot, Purple Blotch, Yellow Rust	0.75 lbs.	33.3 lbs.	Apply when leaf buds begin to open and repeat when flower buds show white. Repeat on a 7 day interval if needed. If needed, agricultural-type spray oil may be added. **NOTE**: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.
Strawberry	Angular Leaf Spot (*Xanthomonas*), Leaf Blight, Leaf Scorch, Leaf Spot	0.75-1.25 lbs.	27.3 lbs.	Begin application when plants are established and continue on a weekly schedule throughout the season. Apply in at least 20 gallons of water. Use the higher rates when conditions favor disease. **NOTE**: Discontinue applications if signs of crop injury appear.

TREE CROPS				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Almond only	Bacterial Blast	0.5 lb	60 lbs.	For bacterial blast control in sprinkler irrigated orchards or where disease is severe, apply 0.5 pounds per acre post-bloom at 2 week intervals if needed or just before sprinkling.
Almond, Apricot, Cherry, Plum, Prune	Bacterial Blast (*Pseudomonas*), Bacterial Canker, Coryneum Blight (Shot Hole)	3.5-7.0 lbs.	60 lbs.	Make first application before fall rains and a second at late dormant. Use the higher rates when conditions favor disease. Minimum retreatment interval is 7 days. If needed, agricultural-type spray oil may be added. For Cherries: Where disease is severe, an additional application shortly after harvest may be required. **NOTE:** Foliar injury may occur from post-bloom sprays on almonds, especially on NePlus varieties.
	Blossom Brown Rot, Coryneum Blight (Shot Hole)	2.5-3.5 lbs. (Almond) 3.5-5.0 lbs. (All Others)	60 lbs.	Apply during early bloom. Do not applyafter full bloom or injury may occur. Use the higher rates when rainfall is heavy and disease pressure is high. Minimum retreatment interval is 5 days.
	Black Knot (Plum)	1.75-3.5 lbs	60 lbs.	Make an application at bud swell up to early bloom for early season diseasesuppression. Apply before full bloom. Minimum retreatment interval is 5 days. Use the higher rates when rainfall is heavy and disease pressure is high. **NOTE:** To avoid plant injury, do not use after full bloom.
	Cherry Leaf Spot (Sour Cherries Only)	2.25-3.5 lbs.	60 lbs.	Apply at petal fall as well as 1 to 2 times after petal fall. Use the lower rates where disease infection is light and use thehigher rates for a dormant application orwhere disease infection is moderate to heavy. Minimum retreatment interval is 5 days. Do not apply to sweet cherry orthe English Morello variety as severe injury will result. The addition of 1 to 3 pounds of hydrated lime per pound of KOCIDE® 3000 may reduce cropinjury. **NOTE:** Moderate to severe injurysuch as leaf spotting and defoliation mayoccur from post-bloom applications.
Apple	Anthracnose, Blossom Blast, European Canker (*Nectria*), Shoot Blast (*Pseudomonas*)	5.25-7.0 lbs.	53.3 lbs.	Apply before fall rains. Use the higherrates when conditions favor disease. **NOTE:** Use on yellow varieties may cause discoloration. To avoid discoloration, pick before spraying.
	Apple Scab, Fire Blight	3.5-7.0 lbs.	53.3 lbs.	Make application between silver-tip and green-tip. Apply as a full cover spray for early season disease suppression. **NOTE:** Moderate to severe crop injurymay occur from late application; discontinue use when green-tip reaches 1/2 inch.
	Apple Scab	0.75-1.75 lbs.	53.3 lbs.	Extended spray schedule where fruit finishis not a concern: Continued applications may be made at 5 to 7 day intervals if neededbetween 1/2 inch green-tip and first cover spray. **NOTE:** Moderate to severe crop injury may result from this extended spray schedule. It is not intended for fresh market apples or for apples where fruit finish is a concern as it is likely to cause fruit russetting. The addition of 1 to 3 pounds of hydrated lime per pound of KOCIDE® 3000 may reduce crop injury.
	Fire Blight	0.5-0.75 lbs.		
	Collar Rot, Crown Rot	1.75 lbs.	53.3 lbs.	Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply in early spring or in fall after harvest for best results. Do not apply to foliage or fruit. **NOTE:** Do not use if soil pH is below 5.5 since copper toxicity may result.

TREE CROPS				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Avocado	Anthracnose, Blotch, Scab	3.5-5.25 lbs.	63 lbs.	Apply when bloom buds begin to swell and continue application at 14 to 30 day intervals for five to six applications. Use the higher rates when conditions favor disease.
Banana, Plantain	Sigatoka (Black and Yellow)	0.75 lbs.	63 lbs.	Apply at 7 to 14 day intervals if needed.
	Black Pitting	1.75 lbs.	63 lbs.	Mix in 100 gallons of water. Apply to the fruit stem and the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
Cacao	Black Pod	0.75-3.75 lbs.	52.5 lbs.	Begin applications at the start of the rainy season and continue while infection conditions persist. Apply 0.75 to 2.0 lbs. at 14 to 21 day intervals if needed depending on disease severity. For drier areas, make two to four applications using 2.5 to 3.75 pounds per acre according to disease incidence and planting density.
Coffee	Coffee Berry Disease (*Colletotrichum coffeanum*)	2.5-3.5 lbs.	42 lbs.	Apply first spray after flowering and before onset of long rains and then at 14 to 28 day intervals if needed until picking. Use the higher rates when conditions favor disease.
	Bacterial Blight (*Pseudomonas syringae*)	2.5-3.5 lbs.	42 lbs.	Begin spray program before the onset of long rainy periods and continue throughout the rainy season at 14 to 21 day intervals if needed.The critical time for spraying to control this disease is just before, during and after flowering(s), especially when coinciding with wet weather. Use the higher rates when rainfall is heavy and disease pressure is high.
	Leaf Rust (*Hemileia vastatrix*)	0.75-1.75 lbs.	42 lbs.	Apply before the onset of rain and then at 14 to 21 day intervals if needed while the rains continue. Use the higher rates when rainfall is heavy and disease pressure is high.
	Iron Spot (*Cercospora coffeicola*), Pink Disease (*Corticium salmonicolor*)	0.75 lbs.	42 lbs.	Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.
Filbert	Bacterial Blight	7.0-10.5 lbs.	80 lbs.	Apply as a post harvest spray. In seasons of heavy rainfall, apply a second spray when three-fourths of the leaves have dropped. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added.
	Eastern Filbert Blight	7.0-10.5 lbs.	80 lbs.	Apply as a dilute spray in adequate water for thorough coverage. Make applications starting at bud swell to bud break and continue at 14 day intervals if needed until early May. Thorough coverage is essential. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil or sticking agent may be added.
Mango	Anthracnose	2-6 lbs.	160 lbs.	Apply at 7 day intervals after fruit set until harvest. Use the higher rates when rainfall is heavy and disease pressure is high.

TREE CROPS				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Olive	Olive Knot, Peacock Spot	3.5-7 lbs.	60 lbs.	Make first application before winter rains begin. A second application in early spring should be made if disease is severe. Apply the higher rates for heavy disease pressure or when conditions favor disease development. Minimum retreatment interval is 30 days.
Peach, Nectarine	Bacterial Blast (*Pseudomonas*), Bacterial Canker, Bacterial Spot (*Xanthomonas*), Coryneum Blight (Shot Hole), Leaf Curl	3.5-7.0 lbs.	60 lbs.	Make first application before fall rains and a second at late dormant. For peach leaf curl, late dormant application must be made before leaf buds swell. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added. Minimum retreatment interval is 7 days.
	Blossom Brown Rot, Coryneum Blight (Shot Hole), Leaf Curl	3.5-5.0 lbs.	60 lbs.	Full cover spray at pink bud. Use the higher rates when conditions favor disease. Minimum retreatment interval is 5 days.
	Bacterial Spot	0.25 - 0.5 lb.	60 lbs.	Apply as a post bloom cover spray. Repeat at 5 day intervals if needed. Do not make more than 6 applications. **NOTE: Spotting of leaves and defoliation may occur from use in cover sprays. Discontinue use if injury occurs.**
Pear	Fire Blight	0.5 lb.	53.3 lbs.	Apply at 5 day intervals if needed throughout the bloom period. **NOTE:** Russetting may occur in copper sensitive varieties. Excessive dosages may cause fruit russet on any variety.
	Blossom Blast (*Pseudomonas*)	5.25-7.0 lbs.	53.3 lbs.	Apply before fall rains and again during dormancy before spring growth starts. Use the higher rates when disease pressure is high or when conditions favor disease development.
Pecan	Kernel Rot, Shuck Rot (*Phytophthora cactorum*), Zonate Leaf Spot (*Cristulariella pyramidalis*)	0.75-1.75 lbs.	28 lbs.	For suppression, apply in sufficient water to ensure complete spray coverage at 2 to 4 week intervals if needed, starting at kernel growth and continue until shucks open. Use the higher rates and shorter spray intervals if frequent rainfall occurs.
	Ball Moss, Spanish Moss	2.5-3.5 lbs.	28 lbs.	Apply in 100 gallons of water in the spring when ball moss is actively growing, using 1 1/2 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.
Pistachio	Botryosphaeria Panicle and Shoot Blight, Botrytis Blight, Late Blight (*Alternaria alternata*), Septoria Leaf Blight	1.75-3.5 lbs.	28 lbs.	Make initial application at bud swell and repeat on a 14 to 28 day schedule if needed. If disease conditions are severe, use the higher rates and shorter spray intervals.
Quince	Fire Blight	0.5 lb.	53.3 lbs.	Apply at 5 day intervals if needed throughout the bloom period. Apply in adequate water for thorough coverage.
Walnut	Walnut Blight	3.5-7 lbs.	107 lbs	Apply first spray at early pre-bloom prior to or when catkins are partially expanded. Make additional applications during bloom and early nutlet stage on a 7 day interval if needed when frequent rainfall or extended periods of moisture occur. Thorough coverage of catkins, leaves and nutlets is essential for effective control. **NOTE:** Adequate control may not be obtained when copper tolerant species of *Xanthomonas* bacteria are present.

VEGETABLES				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Bean (Dry, Green)	Brown Spot, Common Blight, Downy Mildew*, Halo Blight	0.5-1.25 lbs	15.8 lbs.	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 14 day schedule if needed depending on environmental conditions. Use the higher rates for more severe disease.
Beet (Table Beet, Beet Greens)	Cercospora Leaf Spot	0.75-2.0 lbs.	26.2 lbs.	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals if needed. Use the higher rates when conditions favor disease.
Carrot	Alternaria Leaf Spot, Cercospora Leaf Spot	0.75-1.5 lbs.	16.7 lbs.	Begin applications when disease first threatens and repeat at 7 to 14 day intervals if needed depending on disease severity.
Celery, Celeriac	Bacterial Blight, Cercospora Early Blight, Septoria Late Blight	0.75 - 1.5 lbs.	17.7 lbs.	Begin applications as soon as plants are first established in the field, repeating at 7 day intervals if needed depending on disease severity and environmental conditions.
Crucifers (Broccoli; Brussels Sprout; Cabbage; Cabbage, Chinese; Cauliflower; Greens, Collard; Greens, Mustard; Greens, Turnip; Kale; Kohlrabi)	Black Leaf Spot (*Alternaria*), Black Rot (*Xanthomonas*), Downy Mildew	0.5-0.75 lbs.	8.8 lbs.	Begin application after transplants are set in the field, or shortly after emergence of field seeded crops or when conditions favor disease development. Apply at 7 to 10 day intervals if needed. Use the higher rates when conditions favor disease **NOTE:** Reddening of older leaves may occur on broccoli and a flecking of wrapper leaves may occur on cabbage.
Cucurbits (Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash, Watermelon)	Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Gummy Stem Blight, Powdery Mildew, Watermelon Bacterial Fruit Blotch (suppression)	0.5-1.25 lbs.	17.5 lbs.	Begin applications prior to disease development and continue while conditions are favorable for disease development. Repeat at 5 to 7 day intervals if needed. Use the higher rates when conditions favor disease. **NOTE:** Crop injury may occur from application at higher rates and shorter intervals. Discontinue use if injury occurs.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	0.75 - 1.5 lbs.	26.3 lbs.	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals if needed depending on disease severity.
Lettuce† including Endive, Escarole	Downy Mildew	0.75 - 1.5 lbs.	26.6 lbs.	Begin applications when disease symptoms first appear or when conditions favor disease development. Repeat at 5 to 10-day intervals if needed depending on disease severity. **NOTE:** Determine if there is varietal sensitivity prior to use. Injury may occur to sensitive lettuce varieties and under adverse weather conditions. Discontinue use if injury occurs.
Okra	Anthracnose, Bacterial Leaf Spot, Leaf Spots, Pod Spot, Powdery Mildew	0.75-1.75 lbs.	17.5 lbs.	Begin treatment when disease first threatens and repeat every 5 to 10 days if needed depending on disease severity. Use the higher rates and shorter spray intervals when conditions favor disease.

†Not registered for use in California and Arizona.

VEGETABLES				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Onion, Garlic, Leek	Bacterial Blight, Downy Mildew, Purple Blotch	0.75 - 1.5 lbs.	20 lbs.	Begin when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals if needed depending on disease severity. Can cause phytotoxicity to leaves.
Pea	Powdery Mildew	0.5-1.25 lbs.	13.2 lbs.	Begin applications when disease symptoms first appear and repeat at weekly intervals if needed. Use the higher rates when conditions favor disease.
Pepper	Anthracnose, Bacterial Spot, Cercospora Leaf Spot	0.75-1.25 lbs.	39.5 lbs.	Begin applications when conditions first favor disease development and repeat at 3 to 10 day intervals if needed depending on disease severity. Use the higher rates when conditions favor disease.
Spinach	Anthracnose, Blue Mold, Cercospora Leaf Spot, Downy Mildew* White Rust disease	0.75-1.25 lbs.	13.2 lbs.	Begin application when disease first appears or when conditions favor disease development. Repeat at 7 to 10 day intervals if needed. Use the higher rates when conditions favor disease. **NOTE:** Flecking may occur on spinach leaves.
Tomato	Anthracnose, Bacterial Speck, Bacterial Spot, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	0.75-1.75 lbs.	58 lbs. (processing) 26.7 lbs. (fresh market)	Begin applications when disease first threatens and repeat at 3 to 10 day intervals if needed depending on disease severity. Use the higher rates when conditions favor disease.
Watercress	Cercospora Leaf Spot	0.75 - 1.5 lbs.	7.1 lbs.	Begin applications when plants are first established in the field, repeating at 7 to 14 day intervals if needed depending on disease severity. Do not exceed four applications per crop. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.
VINES				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Grape	Black Rot, Downy Mildew, Phomopsis, Powdery Mildew	0.75 - 1.5 lbs.	66.7 lbs.	Begin applications at bud break with subsequent applications throughout the season depending on disease severity. Repeat at 3 day intervals if needed. Use the higher rates when conditions favor disease. **NOTE**: Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara and Rosette. Either test for sensitivity or add 1 to 3 pounds of hydrated lime per pound of KOCIDE® 3000.
Hops	Downy Mildew	0.75 - 1.5 lbs.	8.8 lbs.	Make crown treatment after pruning, but before training. After training, apply at 10 day intervals if needed. **NOTE**: Discontinue use two weeks before harvest.
Kiwi	*Erwinia herbicola, Pseudomonas fluorescens, Pseudomonas syringae*	2.0 - 3.5 lbs.	21 lbs.	Apply in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of three applications may be made.

MISCELLANEOUS				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Atemoya	Anthracnose	1.25-2.0 lbs.	42 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Carambola	Anthracnose	2.5-3.5 lbs.	35 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Chives	Downy Mildew	0.75 - 1.5 lbs.	8.8 lbs.	Begin applications when plants are established in the field. Repeat applications every 7 to 10 days if needed depending on disease conditions.
Dill	Phoma Leaf Spot, Rhizoctonia Foliage Blight	0.75-1.25 lbs.	13.2 lbs.	Begin applications when plants are first established in the field and repeat at 7 to 10 day intervals if needed depending upon disease severity and environmental conditions. Use the higher rates when conditions favor disease.
Ginseng	Alternaria Leaf Blight, Stem Blight	1.0-1.75 lbs.	17.5 lbs.	Use as a tank mix with 2 pounds "Rovral" 50W in 100 gallons of water. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Begin KOCIDE® 3000-"Rovral" applications as soon as plants have emerged in spring. Applications should be repeated every 7 days if needed until plants become dormant in fall. Apply fungicides at least 8 hours before rain. Use of a spreader-sticker or sticker is advised. **NOTE**: Alternaria Leaf and Stem Blight is most severe in humid conditions such as those found in the dense canopies of 2 to 4 year old Ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.
Guava	Anthracnose, Red Algae	1.25-2.0 lbs.	16.4 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Litchi	Anthracnose	1.25-2.0 lbs.	16.4 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.

MISCELLANEOUS				
Crop	**Disease**	**Application Rate/Acre**	**Maximum Seasonal Rate/Acre**	**Use Instructions**
Live Oak*	Ball Moss, Spanish Moss	2.5-3.5 lbs.	66.7 lbs.	Apply in 100 gallons of water in the spring when ball moss is actively growing, using 1 1/2 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.
Macadamia	Anthracnose	2.5-4.0 lbs.	31.5 lbs.	Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
	Phytophthora Blight (*P. capsici*), Raceme Blight (*Botrytis cinerea*)	1.25-2.4 lbs.	31.5 lbs.	Apply during raceme development and bloom periods. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease. Minimum retreatment interval is 7 days.
Mamey Sapote	Algal Leaf Spot, Anthracnose	2.5-3.5 lbs.	28 lbs.	Apply when conditions favor disease development. Repeat on 14 to 30 day schedule if needed as disease severity and environmental conditions dictate. Use the higher rates when conditions favor disease.
Papaya	Anthracnose	1.75-4.25 lbs.	70.7 lbs.	Apply before disease appears. Apply at 7 day intervals if needed. The addition of an approved spreader is desirable. Use the higher rates when conditions favor disease.
Parsley	Bacterial Blight (*Pseudomonas sp.*)	1.25 - 2.0 lbs.	6.7 lbs.	Begin applications when plants are first established in the field and repeat at 10 day intervals if needed depending on disease severity and environmental conditions.
Passion Fruit	Anthracnose	2.5-4.0 lbs.	31.5 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease.
Sugar Apple (*Annona*)	Anthracnose	5.25-7.75 lbs.	42 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease.
Sycamore	Anthracnose	0.75-1.25 lbs.	66.7 lbs.	Apply as a full cover spray in 100 gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 to 10 days later at 10% leaf expansion. Use the higher rates when conditions favor disease.

* Not registered for use in California

CONIFERS

For use on conifers, including Douglas Fir, Fir, Juniper, Leyland Cypress, Pine and Spruce, in Christmas tree plantings, forest stands and silviculture nurseries.
For control of foliar diseases, apply KOCIDE® 3000 as a thorough cover spray at rates ranging from 0.75 to 1.75 pounds per acre. Begin applications in the spring at the initiation of new growth and repeat at 7 to 30 day intervals if needed. Use the higher rates when disease pressure is severe or when environmental conditions favor disease development. Maximum seasonal rate per acre is 66.7 lbs.
KOCIDE® 3000 is recommended for use on the listed conifers for control of the following diseases:

Crop	Scientific Name	Disease
Douglas Fir	*Pseudotsuga menziesii*	Rhabdocline Needlecast
Fir	*Abies spp.*	Needlecasts
Juniper	*Juniperus spp.*	Anthracnose, Phomopsis Twig Dieback
Leyland Cypress	*X Cupressocyparis leylandii*	Cercospora Needle Blight
Pine	*Pinus spp.*	Needlecasts
Spruce	*Picea spp.*	Needlecasts

Lichens: To control lichens on any of the conifers above, apply 3.5 pounds of KOCIDE® 3000 per acre as a dormant application before new growth emerges in the spring. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.
NOTE: Do not buffer or combine with emulsifiable concentrate insecticides.

GREENHOUSE AND SHADEHOUSE CROPS

Notice to User: KOCIDE® 3000 may be used in greenhouses and shadehouses to control diseases on crops which appear on this label, and specific instructions have been developed for the crops listed. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shadehouses differs greatly from crops grown under field conditions. Neither the manufacturer nor seller has determined whether or not KOCIDE® 3000 can be used safely on all greenhouse and shadehouse grown crops. The user should determine if KOCIDE® 3000 can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e., foliage, fruit, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use. Consequently; injuries arising from the use of KOCIDE® 3000 on these types of greenhouse and shadehouse crops are the responsibility of the user.
Apply KOCIDE® 3000 according to specific rates given for those crops in pounds per acre. **One level tablespoon of KOCIDE® 3000 per 1,000 square feet is equivalent to 1.0 pound of product per acre.** KOCIDE® 3000 should be applied in adequate water for thorough coverage of plant parts. Begin application at first sign of disease and repeat if needed; use shorter spray intervals during periods when severe disease conditions persist. For maximum seasonal rates per acre, refer to the crop specific directions.
NOTE: Phytotoxicity may occur on young tender flush when KOCIDE® 3000 is applied to citrus seedlings grown in greenhouses or shadehouses.

Crop	Disease	Rate per 1000 Sq Ft	Use Instructions
Citrus (Non-Bearing Nursery)	Brown Rot, Citrus Canker, Greasy Spot, Melanose, Pink Pitting, Scab	1 1/2 TBSP	Begin applications when disease first threatens. Repeat at 7 to 30 day intervals if needed depending on disease severity.
Cucumber	Angular Leaf Spot, Downy Mildew	1/2 - 1 1/2 TBSP	Apply at 5 to 7 day interals when plants begin to vine. Use the higher rates when conditions favor disease.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	1/2 TBSP	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals if needed depending on disease severity.
Pepper	Bacterial Spot	1/2 - 1 1/2 TBSP	Begin applications when conditions first favor disease development and repeat at 3 to 10 day intervals if needed depending on disease severity. Use the higher rates when conditions favor disease.
Tomato	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	1/2 - 1 1/2 TBSP	Begin applications when disease first threatens and repeat at 3 to 10 day intervals if needed depending on disease severity. Use the higher rates when conditions favor disease.

GENERAL CHEMIGATION INSTRUCTIONS

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). Do not apply this product through any other type of irrigation system. In California, do not apply in systems which contain aluminum parts or components.

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® 3000 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® 3000 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® 3000 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® 3000 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® 3000 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® 3000 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® 3000 has been cleared from the last sprinkler head.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, 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 not 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 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.

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 HANDLING: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with KOCIDE® 3000 containing copper hydroxide only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with KOCIDE® 3000 containing copper hydroxide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact ChemTel at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact ChemTel at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a

minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Outer Foil Pouches of Water Soluble Packets (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact ChemTel at 1-800-255-3924, day or night.

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