



SUPPLEMENTAL LABELING

KOCIDE® 4.5LF

(EPA Reg. No. 1812-303)

FOR USE ON TURFGRASS AND ORNAMENTALS**DIRECTIONS FOR USE**

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

TURFGRASS

For use to control algae in turfgrass on sod farms, golf courses, cemeteries, home lawns and industrial or municipal turf areas, including parks, playgrounds and athletic fields. To control algae in turfgrass, Apply 1 pint Kocide 4.5LF per 1,000 square feet in 5 gallons of water. Kocide 4.5LF may be used alone or in combination with other registered turf fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes.

NOTE: Phytotoxicity may occur depending on varietal differences. Apply the recommended rate to a small area and observe for 7 to 10 days for signs of injury. If phytotoxicity occurs, discontinue use. Do not apply in spray solutions with a pH of less than 6.5.

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

ORNAMENTALS

Use Kocide 4.5LF for control of bacterial and fungal diseases of foliage, flowers and stems on container, bench or bed-grown ornamentals in greenhouses, shadehouses, and outdoor nurseries, for professional use on ornamentals grown for indoor and outdoor landscaping landscape plantings, and for control of bacterial and fungal diseases of foliage, flowers and stems.

For Control of Diseases on Ornamentals in Greenhouses, Shadehouses, Fields and Nurseries: For ornamental crops in dormancy, apply as a thorough cover spray at rates ranging from $\frac{2}{3}$ to $2\frac{2}{3}$ pints per acre of Kocide 4.5LF. When new growth is present, apply as a thorough cover spray at rates ranging from $\frac{2}{3}$ to 2 pints per acre of Kocide 4.5LF. **One tablespoon of Kocide 4.5LF 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 shorter interval during periods of frequent rains or when severe disease conditions persist.

Kocide 4.5LF 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 4.5LF 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 widely ~~varying growth range of growing~~ conditions, it is impossible to test every one for sensitivity to Kocide 4.5LF. Neither the manufacturer nor seller has determined whether or not Kocide 4.5LF can be safely used on ornamental or nursery plants not listed on this label. The user should determine if Kocide 4.5LF 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.~~

<u>Crop</u>	<u>Scientific Name</u>	<u>Disease</u>
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>	Xanthomonas Leaf Spot, Cercospora Leaf Spot, Alternaria
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.	Cercospora Leaf Spot, Botrytis Blight, Phytophthora Dieback, Powdery Mildew
Beech*	<i>Fagus</i> spp.	Leaf Spots
Begonia	<i>Begonia semperflorens</i>	Bacterial Leaf Spot (<i>Xanthomonas</i> spp., <i>Erwinia</i> spp., <i>Pseudomonas</i> spp.)

Boston Fern	<i>Nephrolepis exaltata</i>	Bacterial Leaf Spot
Bougainvillea	<i>Bougainvillea spectabilis</i>	Anthracnose, Bacterial Leaf Spot
Boxwood*	<i>Buxus</i> spp.	Leaf Spots
Camellia	<i>Camellia japonica</i> , <i>C. sasanqua</i>	Anthracnose, Bacterial Leaf Spot
Camphor Tree	<i>Cinnamomum camphora</i>	Pseudomonas Leaf Spot
Canna	<i>Canna</i> spp.	Pseudomonas Leaf Spot
Carnation <u>1</u> /	<i>Dianthus</i> spp.	Alternaria Blight, Pseudomonas Leaf Spot, Botrytis Blight
Cedar*	<i>Cedrus</i> spp.	Tip Blight
Chinese Tallow Tree	<i>Sapium sebiferum</i>	Bacterial Leaf Spot (<i>Xanthomonas</i> spp., <i>Pseudomonas</i> spp.)
Chrysanthemum <u>1</u> /	<i>Chrysanthemum morifolium</i>	Septoria Leaf Spot, Botrytis Blight, Pseudomonas 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
Date Palm	<i>Phoenix canariensis</i>	Pestalotia Leaf Spot
Delphinium*	<i>Delphinium</i> spp.	Leaf Spots
Dianthus	<i>Dianthus</i> spp.	Bacterial Spot, Bacterial Soft Rot

Dogwood	<i>Cornus florida</i>	Anthrachnose
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>)
Easter Lily <u>2/</u>	<i>Lilium longiflorum</i>	Botrytis Blight
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.	Botrytis Blight, Anthracnose
European Fan Palm	<i>Chamaerops humilis</i>	Pestalotia Leaf Spot
Filbert (Ornamental)*	<i>Corylus</i> spp.	Filbert Blight
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, Anthrachnose, Botrytis Gray Mold, Bacterial Leaf Blight
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 <u>4/</u>	<i>Hibiscus</i> spp.	Bacterial Leaf Spot
Holly*	<i>Ilex</i> spp.	Bacterial Blight, Leaf Spots
Holly Fern	<i>Cyrtomium falcatum</i>	Pseudomonas Leaf Spot

Honeylocust	<i>Gleditsia triacanthos</i>	Bacterial Leaf Spot
Impatiens	<i>Impatiens sallerana</i>	Bacterial Leaf Spot
Indian Hawthorn <u>5</u> /	<i>Raphiolepis indica</i>	Anthracnose, Entomosporium Leaf Spot
Iris <u>6</u> /	<i>Iris</i> spp.	Bacterial Leaf Spot
Ivy (English, Algerian) <u>1</u> /	<i>Hedera helix</i> , <i>H. canariensis</i>	Xanthomonas Leaf Spot
Ixora	<i>Ixora coccinea</i>	Xanthomonas Leaf Spot
Juniper	<i>Juniperus</i> spp.	Anthracnose, Twig Blight
Lantana	<i>Lantana camera</i>	Bacterial Leaf Spot
Lilac	<i>Syringa</i> spp.	Cercospora Leaf Spot
Linden*	<i>Tilia</i> spp.	Anthracnose, Leaf Blight
Loblolly Bay	<i>Gordonia lasianthus</i>	Anthracnose
Loquat	<i>Eriobotrya japonica</i>	<i>Entomosporium maculata</i> , <i>Colletotrichum</i> spp.
Magnolia (Southern)	<i>Magnolia grandiflora</i>	Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot
Magnolia (Sweetbay)	<i>Magnolia virginiana</i>	Anthracnose
Magnolia (Oriental)	<i>Magnolia soulangiana</i>	Bacterial Leaf Spot
Mandevilla	<i>Mandevilla</i> spp.	Anthracnose
Maple*	<i>Acer</i> spp.	Pseudomonas Leaf Blight
Marigold	<i>Tagetes</i> spp.	Alternaria Leaf Spot, Botrytis Leaf Rot, Flower Rot, Cercospora Leaf Spot
Mountain-Ash*	<i>Sorbus</i> spp.	Fire Blight
Mulberry, Contorted	<i>Morus bombycis</i>	Bacterial Leaf Spot

Mulberry, Weeping	<i>Morus alba</i>	Bacterial Leaf Spot
Narcissus*	<i>Narcissus</i> spp.	Leaf Blight
Nephthytis	<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
Parlor Palm	<i>Chamaedorea elegans</i>	Bacterial Leaf Spot
Peach (Flowering) 3/*	<i>Prunus</i> spp.	Fire Blight, Bacterial Blast, Brown Rot
Pear (Flowering)	<i>Pyrus calleryana</i>	Fire Blight, Leaf Spot
Pentas (Egyptian Star)	<i>Pentas</i> spp.	Bacterial Leaf Spot (<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 fraserii</i> , <i>P. glabra</i>	Anthracnose, Entomosporium Leaf Spot
Pine*	<i>Pinus</i> spp.	Needle Blight
Pistachio	<i>Pistacia chinensis</i>	Anthracnose
Plantain Lily 6/	<i>Hosta</i> spp.	Bacterial Leaf Spot

Plum (Flowering) <u>3</u> /*	<i>Prunus</i> spp.	Fire Blight, Bacterial Blast, Brown Rot
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
Queen Palm	<i>Arecastrum romanzoffianum</i>	Exosporium Leaf Spot, Phytophthora Bud Rot
Rhododendron	<i>Rhododendron</i> spp.	Alternaria Flower Spot
Rose <u>1</u> /	<i>Rosa</i> spp.	Powdery Mildew, Black Spot
Snapdragon	<i>Antirrhinum majus</i>	Anthracnose, Dieback, Downy Mildew
Spathe Flower	<i>Spathiphyllum</i> spp.	Bacterial Leaf Spot
Spiraea*	<i>Spiraea</i> spp.	Fire Blight
Spruce*	<i>Picea</i> spp.	Needle Casts
Tatarian Honeysuckle	<i>Lonicera tatarica</i>	Bacterial Leaf Spot
Tulip	<i>Tulipa</i> spp.	Anthracnose, 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>	Anthracnose
Viola (Pansy, Violet)*	<i>Viola</i> spp.	Downy Mildew
Washingtonia Palm	<i>Washingtonia robusta</i>	Pestalotia Leaf Spot
Weeping Fig	<i>Ficus benjamina</i>	Bacterial Leaf Spot

Willow	<i>Salix</i> spp.	Anthracnose
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

*Use in all states except California

- 1/ Discoloration of foliage and/or blooms has been noted on some varieties. To prevent residues on commercial plants, do not spray immediately before selling season.
- 2/ Apply Kocide 4.5LF at 2 to 3 1/3 pints per acre. ~~in 20 to 100 gallons water.~~
- 3/ Apply dormant through bloom only.
- 4/ Hibiscus - Do not apply to plants in flower.
- 5/ For Indian Hawthorn use 1 1/3 to 2 2/3 pints per acre.
- 6/ Some cultivars may be sensitive to Kocide 4.5LF.

NOTE: Phytotoxicity may depend on varietal differences. If unfamiliar with the use of Kocide 4.5LF, apply the recommended rate to a few plants and observe after 7 to 10 days for symptoms of phytotoxicity.

IMPORTANT: All applicable directions, restrictions and precautions on the EPA registered label are to be followed. This labeling must be in the possession of the user at the time of pesticide application.