



AMVAC CHEMICAL CORPORATION

4100 EAST WASHINGTON BLVD, LOS ANGELES, CALIF. 90023
 (213) 264-3910 FAX (213) 268-1028

AGRICULTURAL BULLETIN

BLOCKER™ 4F

FOR THE PREVENTION AND CONTROL OF CERTAIN SOILBORNE DISEASES ON TURFGRASS AND ORNAMENTALS

ACCEPTED
 AUG 31 1999
 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 5481-472

SUPPLEMENTAL LABELING

EPA REG. NO. 5481-472
 DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. All applicable directions, restrictions and precautions on the EPA-registered label for BLOCKER 4F are to be followed.

This label must be in the possession of the user at the time of pesticide application.

TURFGRASS

Use as a fungicide for the prevention and control of the listed soilborne diseases which attack turfgrasses.

Diseases Controlled

- Brown Patch (*Rhizoctonia solani*)
- Dollar Spot (*Sclerotinia homoeocarpa*)*
- Pink Snow Mold (*Microdochium nivale*)
- Leaf Spot (*Drechslera spp.*)*
- Gray Snow Mold (*Typhula spp.*)

*NOT REGISTERED FOR USE IN CALIFORNIA

For best results, use as a preventive application before diseases appear or apply at the first sign of the infection. If heavy rainfall or flooding occurs after treatment or if disease is severe or reappears, treat area again. Follow the rates and comments as listed in the table below for control of turfgrass diseases.

NOTE:

- Apply in sufficient water to assure uniform ground coverage.
- Treated area should be watered lightly as soon as possible after the application to wash the fungicide down to the soil level.
- Apply the high rate when disease is severe and use low rate when disease pressure is light.

Disease/Host	fl. oz. BLOCKER 4F in Gallons of Water/1,000 sq. ft.	Application Directions
St. Augustine, Bermuda & similar warm season grasses Brown Patch (<i>Rhizoctonia solani</i>)	16 to 24 fl. oz. in 1 - 10 gallons of water	Apply at first sign of disease. If it reappears, retreat 3 to 4 weeks later.
Dichondra Brown Patch (<i>Rhizoctonia solani</i>)	16 to 24 fl. oz. in 5 - 10 gallons of water	Treat as above.
Bluegrass, Rye, Fescue, Bent & similar cool season grasses Brown Patch (<i>Rhizoctonia solani</i>)	5 to 6 fl. oz. in 1 - 10 gallons of water	Apply at first sign of disease. Repeat every 7 to 10 days during warm damp weather.
All Turfgrass Species Leaf Spot (<i>Drechslera spp.</i>)* Dollar Spot (<i>Sclerotinia homoeocarpa</i>)* Do not use in California	11 to 16 fl. oz. in 1 - 10 gallons of water	For preventative, apply in spring or fall of each year. If disease is present, apply 16 fl. oz as soon as possible. If disease is severe, retreat areas 3 to 4 weeks later.
Cool Climate Grasses Gray Snow Mold (<i>Typhula spp.</i>) Pink Snow Mold (<i>Microdochium nivale</i>)	12 to 16 fl. oz. in 1 - 10 gallons of water	First treatment should be made prior to first snowfall. Reapply 6 fl. oz. at 4 to 6 week intervals if a Winter thaw and loss of snow cover occurs.

Do not graze treated areas or feed grass clippings to livestock. Under certain growing conditions, a temporary discoloration of the grass may occasionally occur. This causes no harm and will disappear in a short time.

ORNAMENTALS

BLOCKER 4F is a preventative fungicide that can be used as a soil treatment for control of a variety of soilborne diseases of ornamentals grown in greenhouses, shadehouses, nurseries, landscaping, and interiorscapes as indicated in the table below.

NOTE:

- Spray solution containing BLOCKER 4F must be continuously agitated.
- Drench or incorporate the spray solution thoroughly into the soil.
- When a rate range is shown, use the lower rates on light or coarse textured soils or when disease pressure is expected to be low. Use the higher rates on heavy or fine textured soils or in fields with a history of disease problems and when weather conditions are anticipated to be unfavorable for germination and growth of seedlings.

CROP	DISEASE	QTY OF BLOCKER 4F	RECOMMENDED APPLICATION														
AZALEAS	Azalea Petal Blight (<i>Ovulinia azaleae</i>)	1.5 pts.	Apply specified amount in sufficient water to cover 150 square feet. Apply to soil underneath the bushes and immediate surrounding area. Begin application prior to opening of buds. Repeat every 3 to 4 weeks through bloom period.														
CAMELLIAS	Camellia Flower Blight (<i>Sclerotinia camelliae</i>)																
BEDDING PLANTS, FLOWERING PLANTS, FOLIAGE PLANTS, TROPICAL PLANTS, and WOODY PLANTS such as, but not limited to: Ajuga, Anthurium, Aphelandra, Azalea, Chrysanthemum, Dianthus, Dieffenbachia, Dracaena, Ficus, Fittonia, Gardenia, Gynura, Hoya, Impatiens, Lilies, Marigold, Pansy, Peperomia, Petunia, Poinsettia, Pathos, Rhododendron, Schefflera, Spathiphyllum, Syngonium Tradescantia <i>Do not apply to Philodendron or Pilea as injury may occur.</i>	Root/Stem Rot Damping Off (<i>Rhizoctonia solani</i>) (<i>Pelticularia filamentosa</i>) Black Rot (<i>Sclerotinia sclerotiorum</i>)	6 to 12 fl. oz.	SOIL DRENCH: Mix specified amount in 100 gallons of water and apply as follows: BED, BENCH, CONTAINER & FIELD GROWN PLANTS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Depth of Soil (Inches)</th> <th colspan="2">Quantity of BLOCKER 4F Drench Solution</th> </tr> <tr> <th>Fl. Oz./Sq. Ft.</th> <th>(Sq. Ft./100 gals of soln)</th> </tr> </thead> <tbody> <tr> <td>≤ 2</td> <td>16</td> <td>800</td> </tr> <tr> <td>3</td> <td>24</td> <td>530</td> </tr> <tr> <td>≥ 4</td> <td>32</td> <td>400</td> </tr> </tbody> </table>	Depth of Soil (Inches)	Quantity of BLOCKER 4F Drench Solution		Fl. Oz./Sq. Ft.	(Sq. Ft./100 gals of soln)	≤ 2	16	800	3	24	530	≥ 4	32	400
			Depth of Soil (Inches)		Quantity of BLOCKER 4F Drench Solution												
				Fl. Oz./Sq. Ft.	(Sq. Ft./100 gals of soln)												
			≤ 2	16	800												
			3	24	530												
			≥ 4	32	400												
			POTTED PLANTS														
			Pot Diameter (Inches)	Minimum Quantity of BLOCKER 4F Drench Solution (Fl. Oz./Pot)													
			4	1.5													
			5	3													
6	4																
8	7																
10	13																
12	18																
			If necessary, one repeat application may be made 4 to 6 weeks following the first application.														
			5 pts. BROADCAST APPLICATION: Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 4 inches.														
CUT FLOWERS such as, but not limited to: Carnations, Chrysanthemums, Roses	Storage Rot (<i>Botrytis cinerea</i>)	1 to 3 pts.	DIP APPLICATION: Dip prior to storage. Mix specified amount in 100 gallons of water. Agitation must be maintained in dip tanks.														
			SPRAY APPLICATION: Thoroughly spray plants prior to storage. Mix specified amount in 100 gallons of water.														
HYACINTHS BULBOUS IRIS NARCISSUS TULIPS	Bulb/Root/Stem Rot (<i>Rhizoctonia solania</i>) (<i>Pelticularia solania</i>) Bulb/Crown Rot (<i>Sclerotium rolfsii</i>) (<i>Pelticularia rolfsii</i>) Black Rot (<i>Sclerotinia sclerotiorum</i>)	5 to 10 pts.	BROADCAST APPLICATION: Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 6 inches. <i>*For Bulbous Irises, use 5 to 7 pints and incorporate to a depth of 2 to 3 inches.</i>														
		6 to 9 pts.	IN-FURROW APPLICATION: Apply as an in-furrow spray at planting time. Apply in 5 to 10 gallons of water to 1,000 linear feet of row. Direct spray into open furrow so that it covers entire furrow and bulbs. Close furrow in normal manner. For Black Rot control, always use the higher rate.														
		3 pts.	BULB DIP: Use before planting or storing. It is important to maintain continuous agitation of dip solution to assure uniform application. Add 1% sticker to the solution. Utilize wire mesh for dipping and drain boards to return excess solution to dip tank. Dispose of unused dip solution according to "Storage and Disposal" section on this label. Mix in 3.2 gallons of water (7.5% solution) and soak bulbs for 5 minutes.														
		12 fl. oz.	BAND APPLICATION: Mix in sufficient water for good coverage of soil. Spray a 10-inch band centered on row at planting time. Apply to 1,000 linear feet of row. Follow with 3 additional applications at 15-day intervals.														
GLADIOLUS	Dry Rot (<i>Stromatinia gladioli</i>) (<i>Sclerotinia gladioli</i>)	6 pts.	BROADCAST APPLICATION: Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 4 to 6 inches. Bulbs may be planted immediately after planting.														
		8 pts.	BAND APPLICATION: Mix in sufficient water for good coverage of soil. Spray a 12-inch band centered on row at planting time. Apply to 1,000 linear feet of row. Thoroughly incorporate to a depth of 4 to 6 inches. Bulbs may be planted immediately after incorporation.														

ORNAMENTALS (Cont'd)				
CROP	DISEASE	QTY OF BLOCKER 4F	RECOMMENDED APPLICATION	
LILIUM (Lilies)	Root/Stem Rot (<i>Rhizoctonia solani</i>) (<i>Pellicularia filamentosa</i>)	5 to 10 pts.	BROADCAST APPLICATION: Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. Thoroughly incorporate to a depth of 6 to 7 inches.	
	Bulb/Crown Rot (<i>Sclerotium rolfsii</i>) (<i>Pellicularia rolfsii</i>)	7 to 9 pts.	IN-FURROW APPLICATION: Apply as an in-furrow spray at planting time. Apply in 5 to 10 gallons of water to 1,000 linear feet of row. Direct spray into open furrow so that it covers entire furrow and bulbs. Close furrow in normal manner. For Black Rot control, always use the higher rate.	
	Stem/Black Rot (<i>Sclerotinia sclerotiorum</i>)	6 to 9 pts.	BULB DIP: Use before planting or storing. It is important to maintain continuous agitation of dip solution to assure uniform application. Add 1% sticker to the solution. Utilize wire mesh for dipping and drain boards to return excess solution to dip tank. Dispose of unused dip solution according to "Storage and Disposal" section on container label. Mix in 100 gallons of water and soak bulbs for 5 to 15 minutes.	
SOUTHERN PINE SEEDLINGS	Root/Stem Rot Damping Off (<i>Rhizoctonia spp.</i>) (<i>Pellicularia filamentosa</i>) Southern Pine Needle Blight (<i>Dothistroma plni</i>)	2 pts.	BROADCAST APPLICATION: Apply as a pre-plant broadcast spray prior to planting to 1,000 square feet of soil. Apply in sufficient water for uniform coverage. An additional 1/2 inch of water should be applied by irrigation prior to planting. Seed may be planted immediately after irrigation or within one week of this date.	
VEGETABLE BEDDING PLANTS (Limited to only container-grown) Broccoli Brussels Sprouts Cabbage Cauliflower Peppers Tomatoes	Root/Stem Rot (<i>Rhizoctonia solani</i>) (<i>Pellicularia filamentosa</i>)	6 to 12 fl. oz.	SOIL DRENCH APPLICATION: For use in nurseries or greenhouses. Mix in 100 gallons of water and apply per the chart below.	
			CONTAINER GROWN PLANTS	
			Depth of Soil (inches)	Coverage of Drench Mix
	FL. OZ./Sq. FT.	(Sq. FT./100 gals of soln)		
≤ 2	16	800		
3	24	530		
≥ 4	32	400		
If necessary, one repeat application may be made 4 to 6 weeks later.				

BLOCKER is a trademark of AMVAC Chemical Corporation.

Registrant: AMVAC Chemical Corporation
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 Los Angeles, CA 90023
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