72159-3



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

5/6/2011

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

6 2011 MAY

Becky Parker-Hall Agent for Agrisel USA, Inc. C/o Rivendell Consulting USA, LLC 400 East Jane Street Valdosta, GA 31601

SUBJECT: Label Amendment Chlorosel Pro DF Fungicide EPA Reg. No. 72159-3; Decision # 446017 Your Submission Dated February 4, 2011

Overwrite the Jobel dated Jobel in Josith fue this folder

Dear Ms. Parker-Hall:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended to add me-too uses for golf course fairways, tees and greens, ornamentals and corn, and to make other minor changes, is acceptable provided that you make the following labeling changes:

1. On page 3 in the Agricultural Use Requirements box, line 1 add "(WPS)" after Worker Protection Standard.

2. On page 3, in the Agricultural Use Requirements box, line 6, add "(REI)" after restricted-entry interval.

3. On page 3, in the Agricultural Use Requirements box, line 8, delete "Restricted Entry Interval".

Submit one copy of your final printed labeling before you release the product for shipment.

If you have any questions regarding this correspondence, contact Rose Kearns of my staff by phone at 703-305-5611 or via email at <u>kearns.rosemary@epa.gov</u> or myself at 703-308-9443 or via email at <u>kish.tony@epa.gov</u>.

Sincerely, an Tony Kish

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

Enclosure

# Chlorosel Pro DF Fungicide

	% BY WT.
ACTIVE INGREDIENT: Chlorothalonil (tetrachloroisophthalonitrile)	
OTHER INGREDIENTS:	
TOTAL:	

\*Contains 0.825 pound of active ingredient per 1.0 pound of product

# KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

	FIRST AID
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth to mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
IF SWALLOWED	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have affected person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	ntainer or label with you when calling a poison control center or doctor or going for treatment.
EMERGENCY PHONE NUMBERS	(800) 424-9300 CHEMTREC (transportation and spills) (800) 900-4044 Poison Control Center (human health) (800) 345-4735 ASPCA (animal health)
NOTES TO PHYS	<b>ICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage. temporary allergic reaction respond to treatment with antihistamines or steroid creams

ACCEPTED with COMMENTS In EPA Long Dates

5-6-2011Under the Federal Interclicitle, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

72159-3

EPA Reg. No. 72159-3 EPA Est. No.:

Agrisel USA, Inc P.O. Box 3528 • Suwanee, GA 30024 Net contents: \_\_\_\_ pounds

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. May be fatal if inhaled. Do not breather dust or spray mist. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid prolonged contact with skin. Do-not take internally.

Note to user: This product may produce mild bronchial irritation and temporary irritation of the skin characterized by redness or rash on exposed skin areas. Persons having allergic reactions should contact a physician.

#### 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 chart.

For WPS or non-WPS applications made in enclosed areas, such as greenhouses, applicators and other handlers must wear a NIOSH-approved respirator with any N, P, R, or HE filter.

#### WPS Uses (commercial production on farms, forests, nurseries, sodfarms, and in greenhouses): Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as nitrile rubber, natural rubber, or butyl rubber •
- Shoes plus socks .
- A NIOSH-approved respirator with any N, P, R, or HE filter •
- Protective evewear

#### Non-WPS Uses (such as applications to non-residential turf, golf courses, etc.) Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as nitrile rubber, natural rubber, or butyl rubber •
- Shoes plus socks
- Protective evewear

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.

#### **ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### Users should:

#### USER SAFETY RECOMMENDATIONS

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rincate

This chemical is known to leach through soil into groundwater under certain conditions as a result of labeled use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface waters for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas within field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

#### 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 the 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 12 hours. 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, such as nitrile rubber, natural rubber, or butyl rubber
- Shoes plus socks
- Protective eyewear

**Special Eye Irritation Provisions:** This product is a severe eye irritant. Although the restricted-entry interval expires after 12 hours, for the next 6.5 days, entry is permitted only when the following safety measures are provided:

- 1. At least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site intended for workers entering the treated area.
- 2. Workers must be informed, 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 residues out of their eyes,
- that if they do get residues in their eyes, they should immediately flush their eyes using the eyeflush container that is located at the decontamination site or using other readily available clean water, and
- how to operate the eyeflush container.

#### 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 the product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter or allow others to enter the treated area until sprays have dried.

#### **APPLICATION INSTRUCTIONS**

Chlorosel Pro DF, a dry flowable product containing chlorothalonil, is recommended for use as a spray for the control of many important plant diseases.

#### RESISTANCE MANAGEMENT

To avoid the development of tolerant or resistant strains of fungi, Chlorosel Pro DF should always be tank mixed with a fungicide of different chemistry, and/or a fungicide of different chemistry should be alternated with Chlorosel Pro DF at each application. If after using Chlorosel Pro DF as recommended and the treatment is not effective, a tolerant or resist ant strain of fungi may be present. Discontinue the use of Chlorosel Pro DF for at least one season.

Chlorosel Pro DF is effective for use in programs that attempt to minimize disease resistance to fungicides. Chlorosel Pro DF has a multi-site mode of action and may be used to delay or prevent the development of resistance to singlesite fungicides. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Chlorosel Pro DF in programs that seek to minimize the occurrence of disease resistance to other fungicides.

#### GENERAL PRECAUTIONS

Chlorosel Pro DF can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

Do not combine Chlorosel Pro DF in a spray tank with pesticides, surfactants, or fertilizers, unless prior use has shown the combination to be physically compatible, effective, and non-injurious under conditions of use. Do not combine Chlorosel Pro DF with DiPel 4L, Foil®, Triton AG-98, Triton B-1956 and Latron® B-1956 as phytotoxicity may result from the combination when applied to crops listed on this label.

The required amount of Chlorosel Pro DF should be added slowly into the spray tank during filling. With concentrate sprays, premix the required amount of Chlorosel Pro DF in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

Dosage rates on this label indicate pounds of Chlorosel Pro DF per acre, unless specified otherwise. Under conditions favoring disease development, the high rate specified and shortest application interval should be used.

#### APPLICATION PRECAUTIONS AND REQUIREMENTS

This product must not be applied within 150 feet for aerial and airblast applications, or 25 feet for ground applications of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipmentand weather-related factors determine the potential for spray drift. The applicator and grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

- 1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Excluding helicopters, nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information**.

#### Aerial Drift Reduction Advisory Information:

#### INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable conditions (see **Wind**, **Temperature**).

#### **CONTROLLING DROPLET SIZE - General Techniques**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

#### CONTROLLING DROPLET SIZE - Aircraft

- Number of nozzles Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation** Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift potential.

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### BOOM LENGTH

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **APPLICATION HEIGHT**

Application should not be made at a height greater than 10 ft. above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the upwind and downwind edges of the field, the application must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

#### WIND

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### **ŠENSITIVE AREAS**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

NOTE: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration.

#### AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.

#### CHEMIGATION

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set, and portable (wheel move, side roll, end tow, or hand move) irrigations system(s). Do not apply this product through any other type of irrigation system. Use only on crops specifically designated in the DIRECTIONS FOR USE.

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

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers, or other experts.

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.

#### Specific Instructions for Public Water Systems:

1. 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.

- 2. 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 a 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.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check value to prevent the flow of fluid back toward the injection pump.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. Always inject Chlorosel Pro DF into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides on the intake line on the suction side of the pump.
- 8. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.
- 9. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### Specific Instructions for Sprinkler Irrigation Systems:

Chlorosel Pro DF may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

#### A. Center Pivot, Motorized Lateral Move, and Traveling Gun Irrigation Equipment

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump, of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately two to three times those encountered within the irrigation water line. Venturi application units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered. Thoroughly mix recommended amount of Chlorosel Pro DF for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until Chlorosel Pro DF has been cleared from last sprinkler head.

#### B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment

With stationary systems, an effectively designed in-line Venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45 minute period. Mix desired amount of Chlorosel Pro DF for acreage to be covered with water so that the total mixture of Chlorosel Pro DF plus water in the injection tank is equal to the quantity of water used during calibration, and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. No agitation should be required. Chlorosel Pro DF can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until Chlorosel Pro DF has been cleared from last sprinkler head.

Do not use on greenhouse grown crops.

#### CROP RECOMMENDATIONS-FIELD CROPS

**AS A SPRAY (Ground or Aerial Equipment)** - Apply Chlorosel Pro DF at the rate shown; use sufficient water to provide thorough coverage. Gallonage will vary with crop and amount of plant growth. Spray volume usually will range between 20 to 150 gallons per acre (200 to 1,400 liters per hectare) for dilute sprays and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays and aircraft applications. Both ground and aircraft methods of application are recommended unless specific directions are given for a crop. Application through sprinkler irrigation systems is not recommended unless specific directions are given for a crop. See the following instructions for application.

		FIELD	CROPS	
CROP	DISEASES CONTROLLED	RATE OF CHLOROSEL PRO DF PER APPLICATION (LBS/ACRE)	SEASONAL LIMITS (LBS/ACRE/YEAR)	APPLICATION DIRECTIONS
ASPARAGUS	Rust Purple Spot Cercospora Leaf Blight	1.8 - 3.6	10.9	Begin application after harvest of spears, when conditions favor disease development on ferns, generally when leaf wetness occurs. Repeat applications at 2 to 4 week intervals until ferns are no longer productive. Use high rate and shortest application interval when conditions favor disease development. Do not apply within 190 days (120 days in CA and AZ) before harvest.
BEANS, DRY Including but not limited to: Navy Bean Pinto Bean Kidney Bean Lima Bean Broad Bean Pink Bean Jack Bean Cow Pea Chick Pea (Garbanzo) Blackeyed Pea Southern Pea, etc.	Rust (Phakopsora spp.) Anthracnose Downy Mildew Cercospora Leaf Spot (for Blackeyed Pea only) Ascochyta Blight	1.25 - 1.8	7.2	Use in sufficient water to obtain adequate coverage. Begin applications at first onset of disease which may occur as early as 2 to 4 weeks before flowering. Repeat applications at 7 to 10 day intervals. For use only on beans to be harvested dry with pods removed. Do not apply within 14 days of harvest. Chlorosel Pro DF may be applied through sprinkler irrigation equipment. See calibration directions which appear on the product label.
BEANS, SNAP	Rust (Phakopsora spp.) Botrytis Blight (Gray Mold	1.25 – 2.7 2.7	10.9	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage or when disease first threatens and repeat at 7 day intervals. For resistance management of rust, alternate with another fungicide registered for bean rust control. Do not apply within 7 days of harvest.
BLUEBERRY	Mummy Berry (suppression) Anthracnose	2.7 - 3.6	10.9	Begin applications at budbreak (green tip). Repeat applications until early bloom at 10 day intervals. DO NOT APPLY AFTER EARLY BLOOM, otherwise phytotoxicity may occur to developing fruit. Do not apply within a week before or after an oil application or a tank-mix containing oil-based pesticides. Do not apply within 42 days before harvest. Use a spray volume of 20 GPA for concentrate sprays and 100 GPA for full dilute sprays.
	Septoria Leaf Spot Rust	2.7 - 3.6	10.9	After all berries are harvested, a foliar application may be made to maintain healthy leaves for the following season. Apply in sufficient water (normally 20 to 100 gallons per acre) and repeat at 10 to 14 day intervals.
CABBAGE BROCCOLI CAULIFLOWER CHINESE BROCCOLI CHINESE CABBAGE (only tight- headed varieties) BRUSSELS SPROUTS	Alternaria Leaf Spot Downy Mildew	1.4 – 1.8	14.5	Use in sufficient water to obtain adequate coverage. Begin applications after transplants are set in field, or shortly after emergence of field-seeded crop, or when conditions favor disease development. Repeat at 7 to 10 day intervals. Do not apply within 7 days of harvest.
BRUSSELS SPROUTS (CA only)	Ring Spot	1.4 - 1.8	14.5	For field-seeded Brussels sprouts begin application at time of early sprout development or when conditions favor disease development. Repeat at 7 to 10 day intervals. Do not apply within 7 days of harvest.

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CROP	DISEASES CONTROLLED	RATE OF CHLOROSEL PRO DF PER APPLICATION (LBS/ACRE)	SEASONAL LIMITS (LBS/ACRE/YEAR)	APPLICATION DIRECTIONS
CARROT	Cercospora(Early) Blight Alternaria (Late) Blight	1.4-1.8	18.1	Use in sufficient water obtain adequate coverage. Start applications when disease threatens and repeat at 7 to 10 day intervals. Chlorosel Pro DF may be applied through sprinkler equipment. See calibration directions preceding this section.
CELERY	Cercospora(Early) Blight Septoria (Late) Blight	1.8-2.7	21.8	Use 1.8 top 2.7 pounds per acre on a 7 day schedule. Start application when transplants are set in field. Apply in sufficient water to obtain adequate coverage. DO NOT apply within 7 days of harvest. Chloroset Pro DF may be
	Basal Stalk Rot (Rhizoctonis solani) Pink Rot (Suppression)	2.7		applied through sprinkler equipment. See calibration directions preceding this section.
	Early Blight Late Blight	1.4-1.8 per 100 gals.	· ·	days to maintain control. Start application shortly after crop emergence. Use higher rate under severe disease conditions.
CORN (Sweet) CORN (Grown for seed)	Helminthosporium Leaf Blight, Rust	0.7-1.8	10.9	Use in sufficient water to obtain adequate coverage. Begin applications when conditions favor disease development and repeat at 7 day intervals. Under severe disease conditions, use 1.4 to 1.8 pounds per acre. DO NOT apply within 14 days of harvest. DO NOT apply to sweet corn to be processed. DO NOT allow livestock to graze in treated fields. DO NOT ensile treated corn or use as livestock forage.
CRANBERRY	Fruit Rot Lophodermium Leaf/ Twig Blight	3.8 - 6.0	18.1	Apply at early bloom and repeat at 10 to 14 day intervals. Under severe disease conditions, use the 6 lb. per acre rate on a 10 day schedule. Do not apply within 50 days of harvest. Do not apply to bogs when flooded or allow release of irrigation water from bogs for at least 3 days following application.
				Chlorosel Pro DF may be applied through sprinkler irrigation equipment. Use 300 gallons of water per acre through solid set systems only. See calibration directions preceding this section.

CROP	DISEASES CONTROLLED	RATE OF CHLOROSEL PRO DF PER APPLICATION (LBS/ACRE)	SEASONAL LIMITS (LBS/ACRE/YEAR)	APPLICATION DIRECTIONS
CRANBERRY (continued)	Upright Dieback	3.8 - 6.0	18.1	Apply in sufficient water to uprights and runners making the first application before bloom when shoots begin growth in the spring. Apply at 10 to 14 day intervals. Do not apply within 50 days of harvest. Do not apply to bogs when flooded or allow release of irrigation water from bogs for at least 3 days following application. Chlorosel Pro DF may be applied through sprinkler irrigation equipment. Use 300 gallons of water per acre through solid set systems only. See calibration directions preceding this section.
CUCURBITS Cantaloupe Cucumbers Honeydew Muskmelon Pumpkin Squash Watermelon	Anthracnose Downy Mildew Target Spot	1.4 - 1.8	19.0	Use in sufficient water to obtain adequate coverage. Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7 day intervals. Chlorosel Pro DF may be applied the day of harvest.
	Cercospora Leaf Spot Gummy Stem Blight (Black Rot) Alternaria Leaf Blight Alternaria Leaf Spot Scab Powdery Mildew (Sphaerotheca only)	1.8 – 2.7	19.0	Chlorosel Pro DF may be applied through sprinkler irrigation equipment (solid set, portable wheel move, or center pivot systems only). See Calibration directions preceding this section. Note: Spraying mature watermelons may result in sunburn of the upper surface of the fruit. Do not apply Chlorosel Pro DF to watermelons when any of the following conditions are present: • Intense heat and sunlight, • Drought conditions, • Poor vine canopy, • Other crop and environmental conditions which may be conducive to increased natural sunburn. Do not combine Chlorosel Pro DF with anything except water for application to watermelons unless your prior use has shown the combination to be non-injurious to watermelons under your conditions of use.
GRASSES GROWN FOR SEED	Stem Rust Leaf Rust Stripe Rust Septoria Leaf Spot Glume Blotch Bipolaris Leaf Spot Drechslera Leaf Spot Selenophoma (Eyespot)	0.9 - 1.4	5.4	Use in sufficient water to obtain adequate coverage. Begin applications during stem elongation when conditions favor disease development. Re-apply at flag (top) leaf emergence and repeat applications at 14 day intervals. Do not apply within 14 days of harvest. Do not allow livestock to graze on treated areas or feed hay produced before harvest. Feeding of treated plant parts after harvest of seed is allowed. Chlorosel Pro DF may be applied through sprinkler irrigation equipment (solid set, portable wheel move, or center pivot systems only). See calibration directions preceding this section.

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CROP	DISEASES CONTROLLED	RATE OF CHLOROSEL PRO DF PER APPLICATION (LBS/ACRE)	SEASONAL LIMITS (LBS/ACRE/YEAR)	APPLICATION DIRECTIONS
MANGO	Anthracnose	1.8 - 3.2	28.8	Use a water volume of 20 to 300 gallons per acre. Begin applications at early bloom and repeat on a 7-14 day interval until early fruit development. Begin the season with the 2 pint rate on a 14-day interval. If disease pressure is severe, use the higher rate and shorter interval. Do not apply within 21 days of harvest.
MINT (IN, MI, ND, OR, WI only)	Rust Septoria Leaf Spot	1.2	3.6	Use in sufficient water to obtain adequate coverage, normally 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground and aircraft applications. Begin applications when emerging plants are 4 to 8 inches high. Repeat applications at 7 to 10 day intervals. Do not apply within 80 days of harvest. Do not feed fresh or extracted mint hay from treated fields to livestock.
ONION (Dry bulb) GARLIC	Botrytis Leaf Blight/ Blast Purple Blotch Suppression: Botrytis Neck Rot Downy Mildew	0.9 – 2.7	8.1	Apply in sufficient water to obtain thorough coverage of tops. Chlorosel Pro DF is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows: Rate/Acre Frequency Low Disease Hazard, prior to Infection 0.9 lb. 10 days Low Disease Hazard, some disease present
				1.25 lbs. 7-10 days High Disease Hazard 2.7 lbs. 7 days
				For suppression of neck rot (Botrytis spp.) during storage, a minimum of 3 weekly applications prior to lifting, using 1.25 to 1.8 lbs. of Chlorosel Pro DF per acre is recommended. Do not apply within 7 days of harvest.
ONION (Green bunching) LEEK SHALLOT ONION AND GARLIC GROWN FOR SEED	Botrytis Leaf Blight/ Blast Purple Blotch Downy Mildew (suppression)	1.15	8.1	Use in sufficient water to obtain thorough coverage of tops. Begin applications prior to favorable infection periods and repeat at 7 to 10 day intervals for as long as conditions favor disease. Use the high rate and a 7 day schedule of applications when heavy dew or rain persists. Do not apply within 7 days of harvest on garlic. Do not apply within 14 days of harvest on green bunching onions, leeks, or shallots. Chlorosel Pro DF may be applied through sprinkler irrigation equipment (solid set, portable wheel move, 'or center pivot systems only). See calibration directions preceding this section.

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CROP	DISEASES CONTROLLED	RATE OF CHLOROSEL PRO DF PER APPLICATION (LBS/ACRE)	SEASONAL LIMITS (LBS/ACRE/YEAR)	APPLICATION DIRECTIONS
ΡΑΡΑΥΑ	Alternaria Fruit Spot Anthracnose Stem End Rot	1.4 – 2.7	8.1	Apply with ground equipment only. Use sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when conditions favor development of disease and continue treatments at 14 day intervals until weather conditions no longer favor disease development. Chlorosel Pro DF may be applied the day of harvest.
PARSNIP	Alternaria Leaf Spot Downy Mildew Anthracnose Botrytis Blight (Gray Mold) Bottom Rot (Rhizoctonia)	1.4 - 1.8	7.2	Apply in sufficient water to obtain adequate coverage. Make the first application at the first sign of disease or when conditions are favorable for infection. Continue applications on a 7 to 10 day schedule. Do not apply within 10 days of harvest. Chlorosel Pro DF may be applied through sprinkler irrigation equipment (solid set, portable wheel move, or center pivot systems only). See calibration directions preceding this section.
PASSION FRUIT (HI only)	Alternaria Fruit and Leaf Spot (Passion Fruit Brown Spot) Anthracnose Cercospora Fruit Spot	1.8	9.0	Apply with ground equipment in sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when fruit spots appear (April to July) and continue treatments at 14 day intervals until weather conditions no longer favor disease development. Do not apply within 7 days of harvest.
PEANUT	Early Leaf Spot (Cercospora) Late Leaf Spot (Cercosporidium) Pepper Spot	0.9 – 1.36	10.9	Apply in sufficient water for coverage when leaf wetness first occurs or 30 to 40 days after planting. Repeat at 14 day intervals. When conditions favor late leaf spot or when rust or web blotch occur, apply 1.36 lbs. per acre at 14 day intervals for the remainder of the season. Do not apply within 14 days of harvest. Chlorosel Pro DF may be applied through sprinkler irrigation equipment. Use 1.36 lbs. per acre in solid set, portable wheel move, center pivot, motorized lateral move, or traveling gun sprinkler irrigation equipment. See calibration directions
	Rust Web Blotch	1.36		preceding this section. It is recommended to alternate chemigation applications with ground or aerial applications. Do not allow livestock to graze in treated areas. Do not feed hay or threshings from treated fields to livestock.

CROP	DISEASES CONTROLLED	RATE OF CHLOROSEL PRO DF PER APPLICATION (LBS/ACRE)	SEASONAL LIMITS (LBS/ACRE/YEAR)	APPLICATION DIRECTIONS
ΡΟΤΑΤΟ	Late Blight Early Blight Botrytis Vine Rot Black Dot	0.7 then 0.9 1.36	13.6	<ul> <li>Begin applications at the low rate when vines are first exposed and leaf wetness occurs. Repeat applications lat 5 to 10 day intervals. Begin applying the higher label rates at 5 to 10 day intervals when any one of the following events occur:</li> <li>Vines close within the rows;</li> <li>Late blight forecasting measures severity values (DSV);</li> <li>The crop reaches 300 P-days Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe. Do not apply within 7 days of harvest. Chlorosel Pro DF may be applied through sprinkler irrigation equipment (solid set, portable wheel move, center pivot, or motorized lateral move systems only). Do not exceed a 10 day interval between applications when using this technique. See calibration directions preceding this section.</li> </ul>
SOYBEAN	Anthracnose Diaporthe Pod and Stem Blight Frogeye Leaf Spot (Cercospora sojina) Purple Seed Stain Cercospora Leaf Blight (Cercospora kikuchii) Septoria Brown Spot Rust (Suppression)	See Below	See Below	Apply in sufficient water to obtain complete coverage, using at least 5 gallons of water per acre for aerial application. Use the three application program in areas having a history of moderate to severe disease intensity. The minimum retreatment interval is 14 days. Chlorosel Pro DF may be applied through sprinkler irrigation equipment. Follow application and calibration directions preceding this section. Do not apply within 6 weeks of harvest. Do not feed hay or threshings from treated fields to livestock.
		1.4 – 2.1	5.4	Two application program: For determinate varieties make the first application at early pod set (R3 stage, when the majority of pods are 1/8 to 3/8 inches in length) and the second at beginning of seed formation (R5). For indeterminate varieties, make the first application when largest pods are 1 to 1.25 inches in length. Make the second application 14 days later.
		0.9 – 1.4	5.4	Three application program: For determinate varieties make the first application at the beginning of flowering (R1), the second at early pod set (R3), and the third at beginning of seed formation (R5). For the indeterminate varieties, make the first application one week after first flowering and continue applications at 14 day intervals.
	Stem Canker (Diaprthe phaseolorum var. caulivora)	0.9	5.4	Apply in 10 to 20 gallons of water per acre as a band treatment directing spray to provide coverage of entire plant. Make the first application at time of emergence of the second trifoliate leaves (V2). If conditions favor stem canker disease, make a second and third application. Make all applications at 14 day intervals.

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CROP	DISEASES CONTROLLED	RATE OF CHLOROSEL PRO DF PER APPLICATION (LBS/ACRE)	SEASONAL LIMITS (LBS/ACRE/YEAR)	APPLICATION DIRECTIONS
ΤΟΜΑΤΟ	Foliage: Early Blight Late Blight Gray Leaf Spot Gray Leaf Mold Septoria Leaf Spot Target Spot	1.3 – 1.8	18.3	Apply in sufficient water to obtain adequate coverage. Begin applications when dew or rain occurs and disease threatens. Apply every 7 to 10 days for foliage diseases. For fruit diseases, begin at fruit set and apply every 7 to 14 days. Use the highest rate and shortest interval when disease is severe. Chlorosel Pro DF may be applied the day of harvest. Chlorosel Pro DF may be combined in the spray tank with EPA-registered pesticide products that claim copper as the active ingredient and are labeled for control of bacterial diseases in tomatoes. Check the
	Fruit: Anthracnose Alternaria Fruit Rot (Black Mold) Botrytis Gray Mold Late Blight Fruit Rot Rhizoctonia Fruit Rot	1.8 - 2.6		copper manufacturer's label for specific instructions, precautions, and limitations prior to mixing with Chlorosel Pro DF. Do not use with Copper-Count N in concentrated spray suspensions. Chlorosel Pro DF may be applied through sprinkler irrigation equipment (solid set or portable wheel move systems only). See calibration directions preceding this section.
STRAWBERRY (non-bearing nurseries)	Ramularia leaf spot (Ramularia tulasnei)	1.4	18.1	Apply in sufficient water to obtain adequate coverage Begin application when conditions favor leaf spo development, usually following rainy weather or sprinkle irrigation. Repeat applications at 10 to 14 day intervals Use the shortest interval when disease conditions are severe. Continue applications until runners are dug Chlorosel Pro DF may be applied to strawberry plants ir nurseries through sprinkler irrigation equipment. Refer to the Chlorosel Pro DF label for chemigation instructions Do not use Chlorosel Pro DF on strawberry plants ir commercial fruit production.
STRAWBERRY TRANSPLANTS (preplant dip)	Ramularia leaf spot (Ramularia tulasnei)	1.4	18.1	Mix Chlorosel Pro DF in water and stir the suspension thoroughly. Stir periodically to assure a uniform mixture. Dip strawberry transplants into the suspension for 5 to 10 minutes until plant surfaces are completely wetted. Transplant treated plant stock into nursery beds without rinsing. Wear chemical resistant gloves of any waterproof material when mixing and applying Chlorosel Pro DF as a transplant dip treatment and while handling treated stock. Do not use Chlorosel Pro DF on strawberry plants in commercial fuil production.

#### TREE AND ORCHARD CROPS-APPLICATION INSTRUCTIONS

Apply Chlorosel Pro DF in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, Chlorosel Pro DF may be applied with aircraft using at least 20 gallons of spray per acre. When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of Chlorosel Pro DF listed may be used. Both ground and aircraft methods of application are recommended unless specific directions are given for a crop. Application through sprinkler irrigation systems is not recommended unless specific directions are given for a crop. See the following instructions for application and calibration.

DO NOT allow livestock to graze treated areas. The following spray volumes are recommended as gallons of spray per acre:

CROP	SPRAY VOL	UME (Gallons per Acre)	
Almonds	20 (concentra	ate) to 300 (full dilute)	
Filberts (Hazelnuts) (Oregon only)	20 (concentra	ate) to 300 (full dilute)	
Peach, Nectarine, Apricot, Tart Cherry, Plum, Prune	20 (concentra	ate) to 300 (full dilute)	
Conifers:	Dilute	Concentrate	
Forest Stands	Not used	10 to 20 (aircraft)	}
Christmas Trees	100	10 to 50 (aircraft or ground equipment)	I
Nursery Beds	100	5 to 10 (ground equipment only)	

CROP	DISEASES CONTROLLED	CHLOROSEL PRO DF RATE (LBS./ACRE)	CHLOROSEL PRO DF RATE LBS./100 (GALLONS)	SEASONAL LIMIT (LBS./ACRE)	APPLICATION DIRECTIONS
ALMONDS	Anthracnose Blossom Blight Brown Rot Shothole Scab	3.6	1.0	22.7	For blossom blight, begin application at popcoi (pink bud) and follow with an application at for bloom. If weather is still conducive for diseas development, another application may be made petal fall. For control of shothole, make an application in the autumn at leaf fall. In the spring, make the find application at budbreak, followed by an application at shuck split to control nut infections and to contri- scab. Do not apply within 150 days of harvest.
FILBERTS (Hazelnuts)	Eastern Filbert Blight	3.6	1.0	10.9	Begin applications at leaf bud break and repe applications at 2 to 4 week intervals. Do not app within a week before or after an oil application or tank-mix containing oil-based pesticides. Do r apply within 120 days before harvest.
FRUIT TREES Apricot Cherry (Sweet) Cherry (Tart) Nectarine Peach Plum Prune	Leaf Curl Coryneum Blight (Shothole)	2.8 - 3.8	0.9 – 1.2	16.9	For best control of both diseases, apply at leaf f in late autumn, using sufficient water and prop sprayer calibration to obtain uniform coverag When conditions favor high disease levels, use t high rate of application and apply once or twi more in mid-to-late winter before budswell. If t leaf fall application is not practical, application Chlorosel Pro DF for control of leaf curl may made at any time prior to budswell the followi spring. Where Coyneum blight (shothole) occu also apply at budbreak to protect newly emergi leaves and at shuck split to prevent fruit infection Make applications at a minimum of 10 day interva Chlorosel Pro DF may be applied the day harvest.
	Brown Rot Blossom Blight Lacy Russet Scab (Plum/Prune)	2.8 - 3.8	0.9 – 1.25		Make one application at popcorn (pink, red, or ea white bud) and a second application at full bloom weather conditions favor disease developme make an additional application at petal fall. Ma applications at a minimum of 10 day interva Chlorosel Pro DF may be applied the day harvest.
	Cherry Leaf Spot Scab Black Knot (Cherry, Plum)	2.8 - 3.8	0.9 – 1.25		In addition to the bloom application listed above make one application at shuck split. Do no application at shuck split and befor harvest. If additional disease control is need before harvest, use another registered fungicide. For control of cherry leaf spot after harvest ma one application to foliage within 7 days after fruit removed. In orchards with a history of high leaf sp incidence, make a second application 10 to 14 da later. Make application at a minimum of 10 day interva Chlorosel Pro DF may be applied the day harvest.

\*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops

CROP	DISEASES CONTROLLED	CHLOROSEL PRO DF RATE LBS./ACRE	SEASONAL LIMIT LBS./ACRE	APPLICATION DIRECTIONS
CONIFERS Pines, Spruces	See Below	See Below	20	The minimum retreatment interval for established trees is 21 days. The minimum retreatment in nursery beds is 7 days.
Swiss2.5 - 5.0Needlecast1.2 - 2.5Canker (Pines), Swiss Needlecast1.2 - 2.5		2.5 - 5.0		Single-application technique: In Christmas tree plantations or forest stands, make one application in the spring when new shoot growth is 1/2 to 2 inches in length. Make the first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additiona applications at 4 week intervals until conditions no longer favor
		disease development. For use in nursery beds, apply the highest specified on a 4 week schedule.		
· · · -·	Sirococcus Tip Blight	1.8 - 3.2		
	Rhizosphaera Needlecast (Spruces), Scirrhia Brown Spot (Pines)	5.0		
	Cyclaneusma and Lophodermium Needlecasts (Pines)	2.5 - 5.0		Apply in early spring prior to budbreak. Repeat applications a approximately 6 to 8 week intervals, until spore release ceases in lat fall. Apply monthly during periods of frequent rainfall, and wher Lophodermium infections occur during dormancy (Pacific Northwest) During drought periods, applications may be suspended, then resume upon next occurrence of needle wetness.
	Rhabdocline Needlecast (Douglas fir)	1.4 - 2.5		Apply at budbreak and repeat at 3 to 4 week intervals until needle: are fully elongated and conditions no longer favor diseas development. In plantations of mixed provenance, or when irregula budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds, use the high rate on a 3 week schedule.
	Botrytis Seedling Blight Phoma Twig Blight	1.4- 2.5		Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7 to 14 day intervals as long as disease favorable conditions persist.
	Autoecious Needle Rust (Weir's Cushion) (Spruces)	5.0		Begin applications when 10% of buds have broken and twic thereafter at 7 to 10 day intervals.

**MUSHROOMS**: Verticillium Brown Spot and Dry Bubble - Apply 2.5 to 5 oz. of Chlorosel Pro DF per 1,000 sq. ft. of mushroom bed. Apply as a drench to the mushroom bed surface in at least 12.5 gallons of water per 1,000 sq. ft. of mushroom bed. Make two applications. Apply the high rate (5 oz.) of Chlorosel Pro DF in the first application and the low rate (2.5 oz.) of Chlorosel Pro DF in the second application. The first application should be made within two days of top-dressing the spawn-colonized mushroom compost with a casing layer. The second application should be made at pinning. Do not apply within 5 days of first harvest. Make no more than two applications per cropping cycle. Do not apply-more than 0.4: lbs: of active ingredient chlorothalonil per 1,000-sq.ft. per cropping cycle;

#### **GRASS: SODFARMS**

Apply Chlorosel Pro DF in 30 to 40 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist using the rates recommended in the following table.

Under severe disease conditions, a single application of 15 pints per acre may be made with a 7 day retreatment interval. Subsequent applications must follow the rates and retreatment intervals outlined in the following table for the remainder of the year.

Do not mow or water after treatment until spray deposited on grass is thoroughly dry. Chlorosel Pro DF should always be used in conjunction with good turf management practices.

Sodfarm turf treated with chlorothalonil prior to harvest must be mechanically cut, rolled, and harvested. Follow all provisions outlined in the **Agricultural Use Requirements** box.

Do not use for sodfarms at application rates greater than 13 pounds of active ingredient, per acre, per year.

DISEASES CONTROLLED	LOW DISEASE PRESSU	RE TREATMENT REGIME	EXTREME DISEASE CONDITION	
	Retreatment Interval (Days)	Application Rate (Lbs./Acre) <sup>1</sup>	Minimum Retreatment Interval for the Maximum Single Application (Days)	Application Limit Per Year for Sodfarms (Lbs./Acré)
	7- 10	2.5 *- 5.0	7	15.75
Dollar Spot	14- 21	5.0- 8.8		
Leaf Spot, Melting Out, Brown Blight	7 -10	5.0		
	14- 21	5.0 - 8.8		
Brown Patch	7 - 14	5.0~ 8.8		
Gray Leaf Spot	7-10	5.0- 8.8		
Red Thread	7 - 10	5.0- 8.8		
Anthracnose	7- 14	5.0- 8.8		

<sup>1</sup> One single application of 13.6 lbs. per acre using a minimum retreatment interval of 14 days may be made per year for control of severe disease conditions. After using this high rate the lower rates and retreatment intervals in this table must be followed. <sup>a</sup> Low rate is not effective on intensively mowed grasses.

Diseases are caused by some of the following fungi:

Dollar Spot: Sclerotinia homeocarpa, Lanzia or Moellerodiscus spp.

Leaf Spot, Melting Out and Brown Blight: Drechslera spp., Bipolaris spp., Curvularia spp.

Brown Patch: Rhizoctonia spp.

Anthracnose: Collectotrichum

#### **GOLF COURSE FAIRWAYS**

Apply Chlorosel Pro DF in 30 to 40 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions, use the highest rate and shortest interval corresponding with the applications schedule selected from the table below.

Do not mow or water after treatment until spray deposited on grass is thoroughly dry. Chlorosel Pro DF should always be used in conjunction with good turf management practices. For reentry into treated areas, refer to the **Non-Agricultural Use Requirements** box.

#### FAIRWAYS:

DISEASES	Application Interval	Application Rate	Seasonal Limit
CONTROLLED	(Days)	(Lbs./ Acre) <sup>1</sup>	(Lbs./Acre/Year)
Dollar Spot	7-10	2.5 <sup>2</sup> -5.0	
	14-21	5.0-8.8	
Leaf Spot, Melting Out,	7-10	5.0	
Brown Blight	14-21	5.0-8.8	24 5
Brown Patch	7-14	5.0-8.8	31.5
Gray Leaf Spot	7-10	5.0-8.8	
Red Thread	7-10	5.0-8.8	
Anthracnose	7-14	5.0-8.8	

<sup>1</sup> One single application of 13.6 pounds per acre of Chlorosel Pro DF using minimum retreatment interval of 14 days, may be made per year for control of severe disease conditions. After using this high rate, the lower rates and retreatment intervals in the above table must be followed.

<sup>2</sup> Low rate is not effective on intensively mowed grasses.

#### GOLF COURSE TEES AND GREENS

Apply Chlorosel Pro DF in an adequate amount of water to provide complete coverage. This amount may vary from 90 to 450 gallons to provide complete coverage. See below for suggested rates and timing. Under severe disease conditions, use the high rate. A maximum seasonal amount of 63 pounds per acre may be applied to tees; no more than 88.4 pounds per acre of Chlorosel Pro DF may be applied during a year to greens. For reentry into treated areas, refer to the **Non-Agricultural Use Requirements** box.

DISEASES CONTROLLED <sup>1</sup>	Application Interval (Days)	Application Rate (Lbs./ Acre)		Seasonal Limit (Lbs./Acre/Year)
		Before	After	
	4 1	disease	disease has	
	<u> </u>	occurs	occurred <sup>2</sup>	
Dollar Spot	7-10	5.0-8.8	8.8	88.4 (greens)
Brown Patch	7-14	5.0-8.8	8.8	63 (tees)
Leaf Spot,	7-10	5.0-8.8	8.8	
Melting Out	1			
Gray Leaf Spot	7-10	5.0-8.8	8.8	
Red Thread	7-10	5.0-8.8	8.8	
Anthracnose	7-14	7.5-8.8	-	
Copper Spot	7-10	8.8	8.8	
Stem Rust (Blue Grass)	7-14	8.8	8.8	
Dichondra: Leaf Spot (California Only)	7-14	8.8	8.8	

Diseases listed are caused by fungi, some of which are named as follows:

1. Dollar Spot: Sclerotinia homeocarpia; Lanzia or Moellerodiscus spp.

2. Brown Patch: Rhizoctonia solani, R. zeae, R. cerealis

- 3. Leaf Spots; Melting Out; Brown Bight: Drechslera spp. (including D. poae, D. siccans, Bipolaris sorokiniana, Curvularia spp.)
- 4. Gray Leaf Spot: Pyricularia grisea, P. oryzae
- 5. Red Thread: Laetisaria fuciformis
- 6. Anthracnose: Colletotrichum graminicola

7. Copper Spot: Gloeocercospora sorghi

8. Stem Rust: Puccinia graminis

9. Dichondra Leaf Spot: Alternaria spp.

<sup>2</sup> A single maximum application of 13.6 pounds per acre, with a 14 day retreatment interval, may be made for control of extreme disease conditions in a year.

#### Gray Snow Mold caused by Typhula spp.:

Apply in sufficient water to obtain adequate spray coverage (90 to 450 gallons per acre). Apply 8.8 pounds per acre of turf areas. Applications must be made before snow cover in autumn. Use the high single maximum application rate of 13.6 pounds per acre if turf layer remains frozen prior to snow cover. If snow cover is intermittent or lacking during the winter, reapply Chlorosel Pro DF at 8.8 pounds per acre of turf at monthly intervals until gray snow mold conditions no longer prevail. In areas where pink snow mold (Gerlachia or Fusarium patch) is likely to occur, apply a single application of 8.8 pounds per acre of Chlorosel Pro DF in combination with products containing iprodione at

88.4 ounces active ingredient per acre of turf area. The maximum seasonal application limits are 88.4 pounds per acre for greens, 63 pounds per acre for tees, and 31.5 pounds per acre for general turf and fairways. Read and observe all label directions for products containing these active ingredients.

#### Fusarium (Gerlachia) Patch:

For control of Fusarium patch only where snow cover is intermittent or lacking during the winter, apply 8.8 pounds per acre of Chlorosel Pro DF. Make and initial application of 13.6 pounds per acre in late autumn; and reapply applications of 8.8 pounds per acre at 21 to 28 day intervals until conditions favoring Fusarium patch no longer exist. The maximum seasonal application limits are 88.4 pounds per acre for greens, 63 pounds per acre for tees, and 31.5 pounds per acre for general turf and fairways.

#### Algal Scum:

For prevention of algal scum on turfgrasses caused by cyanobacteria of the genus Lyngbia, apply Chlorosel Pro DF at the rate of 5 to 8.8 pounds per acre of turf on a 7 to 14 day schedule. When algal scum is well established, every attempt should be made to dry out the afflicted area. Once dry, spiking or verticutting should be done to enhance turfgrass recovery in conjunction with a Chlorosel Pro DF application at the rate of 13.6 pounds per acre with a 7 day retreatment at the 5 to 8.8 pounds per acre rate. Several applications of Chlorosel Pro DF at the high 8.8 pounds per acre rate may be necessary for turfgrass recovery. Only a preventative spray program with Chlorosel Pro DF will prevent a recurrence of the algae when environmental conditions are favorable for algal growth. The maximum seasonal applications limits are 88.4 pounds per acre for greens, 63 pounds per acre for tees, and 31.5 pounds per acre for general turf and fairways.

#### **ORNAMENTAL PLANTS**

Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields located on or next to schools (i.e., elementary, middle, or high schools), campgrounds, churches, and theme parks. Chlorosel Pro DF may be used on ornamental plants grown in the field, nurseries, or greenhouses.

#### Ornamentals grown in nurseries, greenhouses:

Apply Chlorosel Pro DF at the rates given in the tables below. Apply in a spray to run-off, when conditions are favorable for disease development. Repeat applications at 7 to 14 day intervals until conditions are no longer favorable. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, apply Chlorosel Pro DF at 7 day intervals. Chlorosel Pro DF should be applied to plants when both foliage and flowers are dry or nearly dry.

Do not use mistblowers or high pressure spray equipment when making applications of Chlorosel Pro DF in greenhouses.

#### Ornamentals grown in the field:

For aerial applications to field-planted ornamentals, a minimum rate of 10 gallons of spray per acre should be used during application. For field grown ornamentals, excluding pachysandra, apply Chlorosel Pro DF at the rate given in the tables below. No more than 44.1 pounds per acre of Chlorosel Pro DF should be applied to field-grown ornamentals per year. Chlorosel Pro DF should be applied to plants when both foliage and flowers are dry or nearly dry.

#### For field-grown pachysandra, apply 3.75 pounds of Chlorosel Pro DF per acre for a single application.

Do not combine Chlorosel Pro DF in the spray tank with the pesticides, surfactants, or fertilizers unless prior use has shown the combination to be physically compatible, effective, and noninjurious under your conditions of use.

Use of Chlorosel Pro DF is recommended for control of fungal diseases referred to by numbers in parentheses following each ornamental. Ornamentals listed on this label have been tested and found to tolerate applications of Chlorosel Pro DF at the recommended rates. Plant sensitivities have been found to be acceptable in specific genera and species listed on this label, however, phytotoxicity may occur. Due to the large number of species, widely carrying growth conditions, and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity. Neither the manufacturer nor seller has determined whether or not Chlorosel Pro DF can be used safely prior to commercial use. The user should test for possible phytotoxic responses, using recommended rates on ornamental plants on a small area prior to commercial treatments and observe for 7 to 10 days for symptoms of phytotoxicity. Applications made during bloom may damage flowers and/or fruits.

NOTE: Fruits and other treated foliage must not be eaten or fed to livestock.

Diseases Controlled by Chlorosel Pro DF:

1. Leaf Spots/Foliar Blights: Actinopelte leaf Spot Alternaria Leaf Spot/Leaf Blight Anthracnose Leaf Blotch, Spot Anthracnose (discula) Blight Ascochyta-Blight Bipolaris (Helminthosporium) Leaf Spot Black Spot on Roses Botrytis Leaf Spot, Leaf Blight Cephalosporium Leaf Spot Cercospora Leaf Spot

Cercosporidium Leaf Spot Coryneum Blight (Shothole) Corynespora Leaf Spot Curvularia Leaf Spot Cylindrosporium Leaf Spot Dactylaria Leaf Spot Didymellina Leaf Spot Dreschlera Leaf Spot Fabraea (Entomosporium) Leaf Spot

Fusarium Leaf Spot Gloeosporium Black Leaf Spot Ink Spot (Drechslera) Marssonia Leaf Spot Monilinia Blossom Blight, Twig Blight

Mycosphaerella Ray Blight Mycrothecium Leaf Spot, Brown Rot Nematostoma Leaf Blight Phylosticta Leaf Spot Rhizoctonia Aerial or Web Blight

Septoria Leaf Spot Sphaeropsis Leaf Spot Stagonospora Leaf Scorch Tan Leaf Spot (Curvularia) Volutella Leaf Blight

Ramularia Leaf Spot

- 2. Flower Spots/Blights: Botrytis Flower Spot, Flower Blight Curvularia Flower Spot, Flower Blight Monilinia Blossom Blight Ovulinia Flower Blight Rhizopus Blossom Blight Sclerotinia Flower Blight
- 3. Cylindrocladium Stem Canker
- 4. Phytophthora Leaf Blight, Dieback
- 5. Powdery Mildews: Erysiphe cichoracearum Microsphaera spp.
- 6. **Rusts:** Gymnosporangium spp. Puccinia spp. Pucciniastrum hydrangeae
- 7. Taphrina Blister
- 8. Scab (Venturia inaequalis)

#### Ornamentals recommended for treatment with Chlorosel Pro DF:

Avoid applications during bloom periods for those plants where flower injury is unacceptable. For poinsettia, discontinue applications prior to bract formation; phytotoxicity is possible on bracts.

23/26 Proposed label text for CHLOROSEL PRO DF LABEL February 3, 2011

Plant	Disease(s)	Application Rate (lb./100 gal.)	Comments
Aglaonema	1	2.5	
Andromeda (Pieris)	4	1.4	
Arabian Violet	2	1.0	
Areca Palm	1	2.5	
Artemesia	1	2.5	
Ash (Fraxinus)	1	1.4	
Aspen	1	1.4	
Azalea	1,2,4	1.4	
Begonia	1	1.0	
Boston Fern	1	2.5	
Buckeye, Horsechestnut	1	1.4	
Camellia	2	1.0	
Carnation	1,2	1.0	
Cherry-laurel	1	1.4	
Chrysanthemum	1,2	1.0	· · · · · · · · · · · · · · · · · · ·
Crabapple	1,2	1.4	· · · · · · · · · · · · · · · · · · ·
Crabappie	1,0,8	1.4	· · · · · · · · · · · · · · · · · · ·
Daffodil	1	1.0	
	1	1.0	· · · · · · · · · · · · · · · · · · ·
Daisy	1		
Dogwood		<u>1.4</u> 2.5	
Dumbcane, Dieffenbachia	1	2.5	
Dracaena	1		· · · · · · · · · · · · · · · · · · ·
Eucalyptus	3	1.4	· · · · · · · · · · · · · · · · · · ·
Euonymus	1	1.4	
Fatsia (Aralia)	1	2.5	
Ficus	1	2.5	
Firethorn, Pyracantha	1	1.4	
Florida Ruffle Fern	1	2.5	
Flowering Almond	1,2	1.4	
Flowering Cherry	1,2	1.4	
Flowering Peach	1,2	1.4	
Flowering Plum	1,2	1.4	
Flowering Quince	1,2	1.4	
Geranium	1,6	1.0	
Gladiolus	1,2	1.0	
Hawthorn	1,6	1.4	
Holly		1.4	
Hollyhock	6	1.0	
Hydrangea (Foliage Only)	1,6	1.0	
lris	1,2	1.0	
Leatherleaf Fem	1	2.5	
Lilac	5	1.4	
Lily	1	1.0	
Lipstick Plant	1	2.5	
Magnolia	1	1,4	
Maple	1	1.4	
Marigold	1	1.0	
Ming Aralia	1	2.5	
Mountain Laurel	1	1.4	
Narcissus	1	1.0	
Oak (Red Group Only)	1,7	1.4	
Oregon Grape (Mahonia)	6	1.4	
Oyster Plant (Rhoeo)	1	2.5	
	1	1.0	
Pansy Parlor Palm (Chamaedorea)		2.5	
Fanor Paint (Chamaeuorea)	l	2.0	

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# Proposed label text for CHLOROSEL PRO DF LABEL February 3, 2011

Plant	Disease(s)	Application Rate (lb./100 gal.)	Comments
Peperomia	1 ;	2.5	
Petunia	1,4	1.0	·
Philodendron	1,4	2.5	
Phlox	1	1.0	
Photinia	1	1.4	
Poinsettia		1.0	Discontinue applications prior to bract formation; phytotoxicity is possible.
Poplar	1	1.4	
Prayer Plant (Maranta)	1	2.5	
Privet, Ligustrum	1	1.4	
Rhododendron	1,2,4	1.4	
Rose	1	1.0	Avoid application during bloom period on plants where flower injury is unacceptable.
Sand Cherry	1,2	1.4	
Sequoia	1	1.4	
Spiraea	1	1.4	
Statice	1	1.0	
Sycamore, Planetree	1	1.4	
Syngonium	1	2.5	
Tulip	1	1.0	
Viburnum	5	1.4	
Walnut, Juglans	1	1.4	
Zebra Plant (Aphelandra)	1	. 2.5	
Zinnia	1,5	1.0	

The following ornamental plant species which have been tested with Chlorosel Pro DF at recommended rates (1.0 to 2.5 pounds per 100 gallons) did not exhibit phytotoxicity (refer to the disease listing above):

# Proposed label text for CHLOROSEL PRO DF LABEL February 3, 2011

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Botanical Name	Common Name	Disease (s) Controlled	Application Rate (Ib./ 100 gal)	
Aechmea fasciata	Aechmea	1	1-2.5	
Araucaria heterophylla	Norfolk Island Pine	1	1-2.5	
Asplenium nidus	Birdnest Fern	1	1-2.5	
Bougainvillea spp.	Bougainvillea	1,4	1-2.5	
Caladium spp.	Caladium	1	1-2.5	
Calathea makoyana	Peacock Plant	1	1-2.5	
Calistephus chinensis	Aster	1,2	1-2.5	
Carissa grandiflora	Natal Plum	1	1-2.5	
Clerodendron thomsonae	Bleeding Heart	1	1-2.5	
Codiaeum spp.	Croton	1	1-2.5	
Cordyline terminalis	Ti Plant	1	1-2.5	
Crassula argentea	Jade Plant	1	1-2.5	
Cyrthomium falcatum	Holly Leaf Fern	1	1-2.5	
Dionaea muscipula	Venus Fly Trap	1	1-2.5	
Dizygotheca elegantissima	False Aralia	1	1-2.5	
Epipremnum aureum	Golden Pothos, Scindapsus	1	1-2.5	
Episcia cupreata	Flame Violet	1	1-2.5	
Fittonia spp.	Silver-Nerve Plant	1	1-2.5	
Gerbera jamesonii	Gerbera Daisy	1,2,4,5	1-2.5	
Gynura samentosa	Purple Passion Vine	1,4	1-2.5	
Gypsophila paniculata	Baby's Breath	1,2,4	1-2.5	
Hoya spp.	Wax Plant	1	1-2.5	
llex cornuta	Chinese Holly	1	1-2.5	
llex crenata	Japanese Holly	1	1-2.5	
Impatiens spp.	Impatiens	1,2,6	1-2.5	
Pilea cadierei	Aluminum Plant	1,4	1-2.5	
Platycerium spp.	Staghorn Fern	1	1-2.5	
Sansevieria trifasciata "Hahnii"	Birdsnest Sanservieria	1	1-2.5	
Tolmeia menziesii	Piggy-Back Plant	1	1-2.5	
Yucca elephantipes	Spinless Yucca	1	1-2.5	
Zygocactus truncatus	Christmas Cactus	1	1-2.5	

NOTE: Do not apply Chlorosel Pro DF to either green or variegated Pittosporum or to Schefflera as multiple applications have been demonstrated to cause phytotoxic responses.

#### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed, or seed by storage or disposal.

**PESTICIDE STORAGE:** Store in a cool place. Protect from excessive heat. Store product in original container only away from water, food, or feed. Keep container closed to prevent spills and contamination. Carefully open containers. After partial use, replace lid and close tightly. Do not put concentrate or diluted product into food or drink containers.

**PESTICIDE-DISPOSAL:** Do not contaminate water, food, or feed by disposal. Improper disposal of excess pesticide, pesticide spray, or rinsate is a violation of Federal law. Wastes resulting from the use of this product that cannot be used according to the label instructions or chemically reprocessed may be disposed of on site or at a landfill or waste disposal facility approved for pesticide disposal, or in accordance with all applicable Federal, state, or local regulations. For further guidance, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Empty containers retain vapor and product residues.

**Disposal of Plastic 1-Way Containers, Bottles, and Drums:** Do not reuse container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Disposal of Refillable Drums, Minibulk, and Bulk Containers: Do not reuse container. If not returned to the point of purchase or to an alternate location designated by the registrant at the time of product purchase, triple rinse or pressure rinse the empty container and offer for reconditioning or recycling if available, or dispose of in a manner approved by state and local authorities.

**Refilling of Refillable Drums, Minibulk, and Bulk Containers:** When the container containing this product is empty, replace the cap and seal all openings that have been opened during use. DO NOT rinse empty container. Return the container to the point of purchase, or to an alternate refilling location designated by the registrant at the time of product purchase.

<u>Instructions for Users and Refillers</u>: The container must only be refilled with this pesticide product. DO NOT reuse the container for any other purpose. Do not transport if this container is damaged or leaking. If the container is damaged, leaking, or obsolete, or to obtain information about recycling refillable containers, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Cleaning is not necessary prior to refilling with the same product. Clean container before final disposal. Disposal of this container must be in compliance with the state and local regulations.

Instructions for Refillers: Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. If the container can not be refilled, triple rinse or pressure rinse the empty container and offer for recycling if available.

#### LIMITATION OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Agrisel USA, Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Agrisel USA, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Agrisel USA, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Agrisel USA, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Agrisel USA, Inc.'s election, the replacement of product.

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