

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OCT 29 2002

Mr. Richard F. Fletcher
Technical and Regulatory Manager
Cleary Chemical Corporation
178 Ridge RD, Suite A
Dayton, NJ 08810

Dear Mr. Fletcher

SUBJECT: Spectro 90 WDG Turf and Ornamental Fungicide
EPA Registration Number 1001-72
Your Submission dated August 15, 2002.

The label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided you make the following changes:

Ingredient Statement:

Line up the percentages of the concentrations for chlorothalonil, thiophanate-methyl, inert ingredients, and the total concentration so that the "%" signs all fall along the same vertical line.

Spanish Language Statement:

Capitalize the word "if" in the English translation in parentheses.

Precautionary Statements:

- Delete the sentence "May be a potential skin sensitizer".
- Move the sentence "Do not graze animals on treated turf or feed clippings to livestock or poultry." to the Directions for Use section.

Storage and Disposal Statements:

- Change the heading "Storage" to "Pesticide Storage".
- Move the Storage and Disposal statements from their current place in the middle of the Directions for Use to either the end of the Directions for Use or the place immediately

following the Non-Agricultural Use Requirements box.

Directions for Use - General Precautions and Restrictions:

- Replace the sentence "This product is not intended for Homeowner use and must be used by individuals/firms licensed, under the directions of, or registered by the state to apply ornamental or turf pest control products." with "Use of this product on home lawns or ornamental plants is prohibited."
- Replace the sentence "Do not apply with fixed wing or rotary aircraft" with "Do not apply aerially." This labeling is required based on the chlorothalonil Reregistration Eligibility Document (RED).

Directions for Use - Non-Agricultural Use Requirements Box:

Change "Turf and Landscape Uses: Do not enter or allow others to enter the treated area until sprays have dried." to "Do not enter or allow others to enter the treated area until sprays have dried."

Turf Applications:

- Delete the term "approaches and rough" in the first sentence in the sentence beginning "For use on fine turf applications ..." Since the mitigation guidance for thiophanate methyl specifies application rates for tees, greens, aprons and fairways you must use these terms in application instructions.
- Similarly, delete the term "approaches" in the sentence in the "Ground Application Instructions" subsection "When treating golf greens, always treat aprons and approaches."
- The proposed maximum single application rate for golf course greens and tees and golf course fairways is 15.7 pounds product per acre, which is 2.82 lbs thiophanate methyl per acre. This slightly exceeds the mitigation rate of 2.72 pounds per acre. Revise this rate downward to 15.1 pounds product per acre, which is the acceptable rate of 2.72 lbs thiophanate methyl per acre.

Horticultural Applications:

Replace the heading "Ground Application Instructions" with "Application Instructions"; since the mitigation guidance prohibits aerial applications.

Chemigation:

Chemigation posting for toxicity category I products:

Since this product is in toxicity category I (signal word = DANGER) you must include the following language on the label:

"Posting of areas to be chemigated is required when:

- Any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or
- When the chemigated area is open to the public such as golf courses or retail greenhouses."

"Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to event deterioration and maintain legibility for the duration of the posting period."

"All words shall consist of letters at least 2 ½ inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER." A small-scale illustration of an acceptable sign is attached at the end of this Notice.

Flood (basin) chemigation:

You must add the following specific required label statements for flood (basin) chemigation: The following statements must be used verbatim:

1. "Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops."
2. "Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:"

Then include verbatim statements 1 through 6 for sprinkler and drip trickle irrigation:

1. "The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow." **ONLY REQUIRED FOR SYSTEMS OTHER THAN PUBLIC WATER SYSTEMS.**
2. "The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump." **ALSO REQUIRED FOR PUBLIC WATER SYSTEMS.**
3. "The pesticide injection pipeline must also contain a functional, normally dosed, 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." **ALSO REQUIRED FOR PUBLIC WATER SYSTEMS.**
4. "The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops." **ALSO REQUIRED FOR PUBLIC WATER SYSTEMS.**
5. "The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected." **ONLY REQUIRED FOR SYSTEMS OTHER THAN PUBLIC WATER SYSTEMS.**
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." **ALSO REQUIRED FOR PUBLIC WATER SYSTEMS.**

Please submit one copy of your final printed labeling before you release the product for shipment. A stamped copy of the label is enclosed for your records.

If you have any questions, please contact Lisa Jones of my staff by phone at (703) 308-9424 or by e-mail at jones.lisa@epa.gov.

Sincerely,

Mary L. Waller

Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505C)

CONCURRENCES							
SYMBOL ▶	7505C						
SURNAME ▶	Lisa Jones						
DATE ▶	Oct 29, 2002						

For Professional Use

SPECTRO 90 WDG

Turf and Ornamental Fungicide

For the prevention and control of fine turf diseases and diseases of annual and perennial flowers, bedding plants, foliage plants, ground covers, plus deciduous and evergreen trees and shrubs.

Active ingredients:

chlorothalonil (tetrachloroisophthalonitrile)
thiophanate-methyl (dimethyl 4,4-o-phenylenebis-(3, thioallophanate))

72%

Inert ingredients

10%

Total

100%

**ACCEPTED
with COMMENTS
In EPA Letter Dated:
18% OCT 29 2002**
**Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.**

1001-72**Keep Out Of Reach Of Children****Danger - Peligro**

See side panel for additional precautionary statements.

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

STATEMENT OF FIRST AID

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

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

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

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Note to physicians: Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Persons having temporary skin irritation may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

PRECAUTIONARY STATEMENTS**Hazards to humans and domestic animals.**

Danger - Corrosive, causes irreversible eye damage. May be fatal if inhaled. Harmful if swallowed or absorbed through skin. May be a potential skin sensitizer. Do not get in eyes or on clothing or skin. Wear goggles or face-shield when handling. Do not breath dust or spray mist. Avoid prolonged contact with skin. Prolonged or

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frequently repeated skin contact may cause allergic reactions in some individuals. 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. Affected persons should consult a physician. **Do not** graze animals on treated turf or feed clippings to livestock or poultry.

Personal Protection Equipment (PPE):

WPS Uses: Mixers, Loaders, Applicators and all other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170), must wear :

- Long sleeved shirt and long pants,
- Shoes plus socks, and
- Protective eye wear

In addition, chemical-resistant gloves made of any waterproof material must be worn by:

1. Mixers/loaders,
2. Other handlers exposed to concentrate,
3. Cleaners/repairers of equipment,
4. Applicators using airblast equipment for golf course applications,
5. And applicators using handheld equipment.

Some materials that are chemical-resistant to this product are listed below:

barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils.

If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

In addition, a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P, or HE filter) must be worn by applicators and other handlers in enclosed areas, such as a greenhouse.

Non-WPS Uses: Applicators and other handlers who handle this pesticide for any use not covered by the Worker Protection Standard (40 CFR Part 170), must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- Protective eye wear

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **Do not** reuse them.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the 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 pesticide 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 rinsate.

This chemical is known to leach through soil into groundwater under certain conditions as a result of label 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 water for several days to weeks after application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying 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, or animals, 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 statements 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.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves made of any waterproof material, shoes with socks, and protective eye wear.

Special Eye Irritation Provisions: This product is a severe eye irritant. Although the restricted entry interval (REI) expires after 12 hours, for the next 6 ½ 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;
 - a) That residues in the treated area may be highly irritating to their eyes.
 - b) That they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes.
 - c) 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.
 - d) 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 this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Turf and Landscape Uses: Do not enter or allow others to enter the treated area until sprays have dried.

General Information:

Cleary's SPECTRO may be applied with ground equipment using sufficient volume of spray to provide thorough coverage. Add required amount of SPECTRO to a partially filled tank, agitate by mechanical or hydraulic means and then add remaining required amount of water. Continuous agitation is required to keep the material in suspension. **Do not** tank mix with copper-containing materials or with highly alkaline pesticides such as Bordeaux mixture of lime sulfur. **Do not** combine SPECTRO with other pesticides, surfactants, or fertilizers, unless your prior use has shown the combination is physically compatible, effective, and non-injurious under your conditions of use. In general, add insecticide and fertilizer products last. No claim of compatibility with other pesticides is implied. **Do not** combine SPECTRO with Dipel 4L, Foil, Triton Ag-98, Triton B-1956, Latron B-1956 or Latron AG-98 as phytotoxicity may result from the combination when applied to some species on this label.

GENERAL PRECAUTIONS AND RESTRICTIONS

This product is not intended for Homeowner use, and must be used by individuals/firms licensed by, under the direction of someone licensed by, or registered by the state to apply turf and ornamental pest control products.

This product must not be applied within 150 ft (for ~~aerial~~ and air-blast) 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 body of water. **Do not apply with fixed wing or rotary aircraft.**

Storage and Disposal

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

Storage: Store in a cool, dry area in original unopened container. Store in a secured area unavailable to unauthorized persons.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide sprays or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental control Agency, or the Hazardous waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Completely empty bag into application equipment. Then dispose of empty in a sanitary landfill or by incineration or as allowed by State and local authorities by burning. If burned, stay out of smoke.

TURF APPLICATIONS

For use on fine turf applications such as Commercial and Public (such as commercial lawns, athletic fields, ~~and~~ cemeteries, parks and recreational), and Golf Courses (Greens, Tees, Fairways, Approaches, and Rough) of cool season and warm season grasses (such as Bentgrasses, Bermudagrasses, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia) or their mixtures. Cleary's SPECTRO is not phytotoxic to any of the above mentioned grasses when used in accordance with the label. SPECTRO is to be used for the prevention and control of the diseases mentioned below. It can provide both curative and protective action. For best results use spray mixture the same day it is prepared. Spray uniformly over the area to be treated with a properly calibrated power sprayer. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Treatments should be applied using 7-14 - 21 day intervals as indicated. When treating golf greens, always treat aprons and approaches. Use the highest recommended rate and shortest application interval under conditions of severe disease pressure. Refer to Table 1 and Table 2 rate

and interval instructions and Table 3 for proper use. Apply recommended amounts in sufficient water to obtain thorough coverage (2-4 gallons suggested per 1,000 square feet). Cleary's SPECTRO should always be used in conjunction with good turf management practices. Apply after mowing or avoid mowing twelve hours after application. **Do not** mow or water after treatment until spray deposited on turfgrass is thoroughly dry (unless directed specifically by use directions).

~~Sodfarm turf treated with chlorothalonil prior to harvest must be mechanically cut, rolled, and harvested. Not for use on turf being grown for sale or commercial use as sod.~~ Use of this product on home lawns is prohibited.

Table 1: Maximum seasonal application rates. Do not exceed the following amounts per Acre.

Use Site(s)	Lbs Spectro 90 WDG	Ounces Spectro 90 WDG
Golf Course – Greens	101	37.25 oz / 1000 sq. ft.
Golf Course – Tees	72	26.50 oz / 1000 sq. ft.
Golf Course – Fairways, Sod Farms, and General Turf (commercial, recreational, athletics, etc.) <u>Except Florida</u>	36 <u>30.2</u>	13.25 <u>12</u> oz / 1000 sq. ft.
<u>Golf Course – Fairways - Florida Only</u>	<u>15.1</u>	<u>5.56 oz / 1000 sq. ft.</u>
<u>Public Areas (commercial, recreational, athletics, etc.)</u>	<u>36</u>	13.25 oz / 1000 sq. ft

Table 2: Maximum individual application rates and minimum re-treatment intervals. Do not exceed the amounts per Acre or reduce the re-treatment interval indicated below.

Use site	Maximum individual application rate Lbs Spectro 90 WDG	Minimum re-treatment interval (days)	Remarks
Golf course – Greens and Tees	10.1 (3.72 oz / 1000)	7	
	15.7 (5.76 oz / 1000)	14	
Golf course – Fairways and Sod Farms <u>Except Florida</u>	10.1 (3.72 oz / 1000)	7	
	15.7 (5.76 oz / 1000)	14	One application only <u>at max rate.</u>
<u>Golf course – Fairways Florida Only</u>	<u>15.1 (5.56 oz / 1000)</u>	<u>14</u>	
Turf - General (commercial, recreational, athletics, etc.) <u>Public Areas (commercial, recreational, athletics, etc.)</u>	11.4 (4.18 oz / 1000)	7	
	15.7 (5.76 oz / 1000) <u>15.1 (5.56 oz / 1000)</u>	14	One application only <u>4 Application max.</u>

Table 3: Turf Disease Control

Disease(s) controlled	Application Interval (days)	Application Rate (oz/1000)

Anthracnose (foliar and basal rot) <i>Colletotricum graminicola</i> (a)	7-14	3 - 5.76
Brown patch <i>Rhizoctonia solani</i> , <i>R. zeae</i> , <i>R. cerealis</i>	7-14 14-21	3 - 5.76
Copper spot <i>Gloeocercospora sorghi</i>	7-14	3 - 5.76
Dollar spot <i>Sclerotinia homeocarpa</i> , <i>Lanzia</i> or <i>Moellerodiscus</i> spp.	7-14 14-21	3.72 - 5.76
Gray leaf spot <i>Pyricularia grisea</i> , <i>P. oryzae</i>	7-14	3.72 - 5.76
Leaf spot, melt-out <i>Helminthosporium</i> spp., <i>Dreschlera</i> spp., <i>Bipolaris</i> spp., <i>Curvularia</i> spp.	7-14	3.72 - 5.76
Red thread <i>Laetisaria fuciformis</i>	7-14	3.72 - 5.76
Snow mold, gray <i>Typhula</i> spp. (b)	7-14	3.72 - 5.76
Snow mold, pink <i>Fusarium nivale</i> , <i>Microdochium nivale</i> (b)	7-14	3.72 - 5.76
Bluegrass stem rust	7-14	3.72 - 5.76
Powdery mildew	7-14	3.72 - 5.76
Downy mildew	7-14	3.72 - 5.76
Fusarium blight	7-14	3.72 - 5.76
Fusarium patch	7-14	3.72 - 5.76
Dichondra leaf spot	7-14	3.72 - 5.76

Special Instructions:

(a) Irrigate/syringe lightly (0.1 - 0.25 inches of water) after 8-12 hours. Take care not to move material below root zone of turf in treatment area.

(b) Apply before turf has stopped all growth activity and before snow cover. If snow cover is intermittent or lacking, additional applications may be made at monthly intervals in areas of suspected or historic gray snow mold activity. In areas of predominantly pink snow mold, application should be made during the reproductive (fruiting) period of the pathogen for best results. Consult with your local extension service for this information.

Algae Control:

For the prevention of algal scum of turfgrasses caused by cyanobacteria of the genus *Lyngbia*, apply Spectro 90 WDG at a rate of 2 - 3.72 ounces per 1000 square feet on a 7 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 Spectro 90 WDG applications at the rate of 3.72 - 5.76 ounces per 1000 square feet on a 7 to 14 day schedule. Several applications of Spectro 90 WDG at the high rate may be necessary for turfgrass recovery. Refer to Table 1 and Table 2 rate and interval instructions for proper use. Only a preventative spray program with Spectro 90 WDG will prevent a recurrence of the algae when environmental conditions are favorable for algal growth.

HORTICULTURAL APPLICATIONS

Nursery, Greenhouse, Landscape, and Interiorscape

Annual and perennial flowers, bedding plants, foliage plants, ground covers, plus deciduous and evergreen trees and shrubs.

Apply Cleary's SPECTRO at a rate of 1.0 to 2.0 pounds per 100 gallons of water unless other directions are given in the information below. For best results use spray mixture the same day it is prepared. Spray uniformly over the area to be treated with a properly calibrated power sprayer, apply as a full coverage spray to run-off when conditions are favorable for disease development. Refer to Table 4 and Table 5 rate and interval instructions for proper use. Application should be made to plants when both foliage and flowers are dry, or nearly dry. SPECTRO can provide both curative and protective action. Use the highest recommended rate and shortest application interval under conditions of severe disease pressure. **Do not** use mistblower or high

pressure (greater than 400 psi) spray equipment when making applications in greenhouses. **Do not** use this product on plants bearing fruits and other parts/structures, which may be eaten.

Table 4: Maximum seasonal application rates. Do not exceed the following amounts per Acre.

Use Site(s)	Lbs Spectro 90 WDG	Remarks
Ornamentals	50.6	Field Grown Only
Roses	50.6	Field Grown Only
Pachysandra	50.6	Field Grown Only
Conifers	22.9	

Table 5: Maximum individual application rates and minimum re-treatment intervals. Do not exceed the amounts per Acre or reduce the re-treatment interval indicated below.

Use site	Maximum individual application rate Lbs Spectro 90 WDG	Minimum re-treatment interval (days)	Remarks
Ornamentals	2.15 lbs / Acre	7	
Roses	1.53 lbs / Acre	7	
Pachysandra	4.31 lbs / Acre	7	
Conifers	5.7 lbs / Acre	21	
Conifers Seed Beds	5.7 lbs / Acre	7	Seed Beds Only

Table 6: Horticultural Disease Control

1. Leaf Spots/Foliar Blights

Actinopelte leaf spot

Alternaria leaf spot, leaf blight

Anthraxnose

Ascochyta blight

Bipolaris (Helminthosporium) leaf spot

Black spot of rose

Blumeriella spp.

Botrytis leaf spot, leaf blight

Cephalosporium leaf spot

Cercospora leaf spot

Cercosporidium leaf spot

Coccomyces spp.

Colletotrichum leaf blotch, leaf spot, blights

Corynespora leaf spot

Coryneum blight, shothole

Curvularia leaf spot, tan leaf spot

Cylindrosporium leaf spot

Dactylaria leaf spot

Didymellina leaf spot

Diplodia spp.

Drechslera leaf spot, ink spot

Exobasidium leaf blister

Entomosporium (Fabraea) leaf spot

Fusarium leaf spot

Gloeosporium black leaf spot

Marssonina leaf spot

Monilinia blossom blight, twig blight

Mycosphaerella ray blight

Myrothecium leaf spot, brown rot

Nematostoma leaf blight

Phoma spp.

Phylloticta leaf spot

Physalospora spp.

Phytophthora aerial blight

Ramularia leaf spot

Rhizoctonia web blight

Schizothyrium spp.

Septoria leaf spot

Sphaeloma spp.

Sphaeropsis leaf spot

Stagonospora leaf scorch

Taphrina leaf blister

Volutella leaf blight

2. Flower Spots/Blights

Botrytis flower spot, flower blight
Curvularia flower spot
Monilinia blossom blight

Ovulinia flower blight
Rhizopus blossom blight
Sclerotinia flower blight

3. Powdery Mildews

Erysiphe spp.
Microsphaera spp.
Phyllactinia spp.

Podospaera spp.
Oidium spp.
Sphaerotheca spp.

4. Rusts

Gymnosporangium spp.
Puccinia spp.

Uromyces spp.

5. Scabs

Venturia spp.

6. Stem Rots/ Crown Rots

Bipolaris (Helminthosporium) spp.
Botrytis spp.
Cylindrocladium stem canker
Fusarium spp.
Gliocladium spp.

Myrothecium spp.
Ramularia spp.
Rhizoctonia spp.
Sclerotinia spp.

Table 7: Ornamentals Suggested For Treatment

Note: The following listing of plants reflect the cumulative inputs from both historical field use and product testing programs. However, it is impossible to test this product on all species and cultivars. This list is provided as a general guide. A preliminary trial is suggested on a small scale before a full treatment is applied to any plant type not shown on this label but found in a similar use site with a listed disease problem Wait 5-7 days after treatment to evaluate trial results for possible phytotoxic responses. This product is not recommended for the following plants: Swedish Ivy (*Plectranthus australis*), Boston Fern (*Nephrolepis exhaltata*), and Easter Cactus (*Hatiora gaertneri*).

Note: Numbers following plant names refer to disease categories.

Trees and Shrubs

Andromeda (*Pieris*) - 1
Ash (*Fraxinus*) - 1, 3, 4, 6
Aspen (*Populus*) - 1, 3, 6
Azalea (*Rhododendron*) - 1, 2, 3, 6
Buckeye, Horsechestnut (*Aesculus*) - 1, 3, 4, 6
Cherry-Laurel (*Prunus*) - 1, 2, 3, 5, 6
Conifers - see Special Instructions below
Crabapple (*Malus*) - 1, 2, 3, 4, 5, 6
Cherry, Sand (*Prunus*) - 1, 2, 3, 5, 6
Dogwood (*Cornus*) - 1, 2, 3, 4, 5, 6
Eucalyptus - 1, 3, 6
Euonymus - 1, 3, 6
Firethorn (*Pyracantha*) - 1, 3, 5, 6
Hawthorn (*Crataegus*) - 1, 3, 4, 5, 6

Holly (*Ilex*) - 1, 2, 3, 6
Lilac (*Syringa*) - 1, 2, 3, 5, 6
Magnolia - 1, 3, 5, 6
Maple (*Acer*) - 1, 3, 5, 6
Mountain Laurel (*Rhododendron*) - 1, 2, 3, 6
Norfolk Island Pine - see Special Instructions below
Oak (*Quercus*) - 1, 3, 6
Oregon-grape (*Mahonia*) - 1, 2, 3, 4, 6
Ornamental Almond (*Prunus*) - 1, 2, 3, 5, 6
Ornamental Cherry (*Prunus*) - 1, 2, 3, 5, 6
Ornamental Peach (*Prunus*) - 1, 2, 3, 5, 6
Ornamental Plum (*Prunus*) - 1, 2, 3, 5, 6
Ornamental Quince (*Chaenomeles*) - 1, 2, 3
Photinia - 1, 3, 4, 6

Poplar (*Populus*) - 1, 3, 6
 Privet (*Ligustrum*) - 1, 3, 6
 Rhododendron - 1, 2, 3, 6
 Sequoia - 1, 6

Spirea (*Spiraea*) - 1, 3
 Sycamore, Planetree (*Platanus*) - 1, 3, 6
 Viburnum - 1, 2, 3, 4, 6
 Walnut (*Juglans*) - 1, 3, 4, 6

Ornamental Plants, Bulbs, and Ground Covers

Arabian Violet (*Exacum*) - 1, 2, 6
 Aster - 1, 2, 3, 4, 6
 Begonia - 1, 2, 3, 6
 Bleeding heart (*Dicentra*) - 1, 6
 Camellia - 1, 2, 6
 Carnation (*Dianthus*) - 1, 2, 3, 4, 6
 Chrysanthemum (*Dendranthemum*) - 1, 2, 3, 4, 6
 Crocus - 6
 Croton (*Codiaeum*) - 1, 6
 Daffodil (*Narcissus*) - 1, 2, 6
 Daisy (*Chrysanthemum*) - 1, 2, 3, 4, 6
 Geranium (*Pelargonium*) - 1, 2, 3, 4, 6
 Gerbera Daisy (*Gerbera*) - 1, 2, 3, 6
 Gladiolus - 1, 2, 6
 Flame violet (*Episcia*) - 1, 6
 Gypsophila - 1, 2, 6
 Hollyhock (*Alcea*) - 1, 3, 4, 6

Hydrangea (foliage) - 1, 2, 3, 5, 6
 Impatiens - 1, 2, 4, 6
 Iris - 1, 2, 4, 6
 Lily (*Lilium*) - 1, 2, 4, 6
 Marigold (*Tagetes*) - 1, 2, 4, 6
 Narcissus - 1, 2, 6
 Natal plum (*Carissa*) - 1, 3, 6
 Pachysandra - 1, 6
 Pansy (*Viola*) - 1, 2, 3, 4, 6
 Petunia - 1, 2, 3, 4, 6
 Phlox - 1, 2, 3, 4, 6
 Poinsettia (*Euphorbia*) - 1, 2, 3, 4, 6
 Rose (*Rosa*) - 1, 2, 3, 4, 6
 Sansevieria - 1, 6
 Statice (*Limonium*) - 1, 2, 4, 6
 Tulip (*Tulipa*) - 1, 2, 6
 Zinnia - 1, 2, 3, 5

Foliage Plants

Aechmea - 1, 6
Aglaonema - 1, 6
 Aluminum Plant (*Pilea*) - 1, 6
Artemisia - 1, 3, 4, 6
 Birdnest Fern (*Asplenium*) - 1, 6
Bougainvillea - 1, 6
Caladium - 1, 6
 Christmas Cactus (*Schlumbergera*) - 1, 6
 Dumbcane (*Diffenbachia*) - 1, 6
Dracaena - 1, 6
 False Aralia (*Dizygotheca*) - 1, 6
Fatsia - 1, 6
Ficus - 1, 6
Fittonia - 1, 6
 Florida Ruffle (*Vittaria*) - 1, 6
 Hollyfern (*Polystichum*) - 1, 6
Hoya - 1, 6
 Jade plant (*Crassula*) - 1, 3, 6
 Leatherleaf Fern (*Acrostichum*) - 1

Lipstick plant (*Aeschynanthus*) - 1, 6
 Ming aralia (*Polyscias*) - 1, 6
 Oyster plant (*Tradescantia*) - 1, 4, 6
 Pachysandra - 1, 6
 Palms - 1, 6
 Peacock plant (*Calathea*, *Kaempferia*) - 1, 2, 6
Peperomia - 1, 6
Philodendron - 1, 6
 Piggyback Plant (*Tolmeia*) - 1, 3, 6
 Pothos (*Epipremnum*) - 1, 6
 Prayer plant (*Maranta*) - 1, 4, 6
 Purple Passion Vine (*Gynura*) - 1, 6
 Staghorn Fern (*Lycopodium*) - 1
Syngonium - 1, 4, 6
 Ti (*Cordyline*) - 1, 6
 Venus's Flytrap (*Dionaea*) - 1, 6
Yucca - 1, 3, 4, 6
 Zebra plant (*Aphelandra*) - 1, 6

Note: Do not apply SPECTRO to either green or variegated Pittosporium or to Schefflera more than once, as multiple applications have been demonstrated to cause phytotoxic responses.

Table 8: Special Instructions For Conifers Diseases Controlled

Diplodia (*Sphaeropsis*) Tip blight (b)
 Swiss needlecast (a)
 Scleroderris canker (pines)(a)
 Sirococcus tip blight(a)
 Rhizosphaera needlecast (spruces)(a)
 Scirrhia brown spot (pines)(a)
 Cyclaneusma needlecasts(b)

Lophoderium needlecasts (b)
 Rhabdocline needlecast (b)
 Botrytis seedling blight (c)
 Phoma twig blight (c)
 Phomopsis Twig Blight (b)
 Kabatina Twig Blight (b)

- (a) Make first application in spring when new shoot growth is ½ to 2 inches in length. Make additional applications at 3-4 week intervals until conditions no longer favor disease development.
- (b) Apply at budbreak and repeat at 2-3 week intervals until needles are fully elongated and conditions no longer favor disease development.
- (c) Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7-14 day intervals as long as disease favorable conditions persist.

CHEMIGATION - Application through Irrigation Systems

Generic Requirements

1. Apply this product only through a sprinkler including center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, hand held or similar; flood (basin); or drip (trickle) irrigation system. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
5. 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 Requirements

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 (RPZ), backflow preventer 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 valve to prevent the flow of fluid back towards 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 drawn 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 or equivalent, effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

7. Do not apply when wind speed favors drift beyond the area intended for treatment.

APPLICATION INSTRUCTIONS

Hand Held Irrigation

1. Remove scale, pesticide residue, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

2. Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application.

3. Prepare a suspension of product in the mix tank or stock bucket. Fill the tank with 1/2 or 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water.

4. Maintain a gentle agitation in the mix tank during application to assure a uniform suspension.

5. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ration of 1:100 is recommended for greenhouse systems.

INSTRUCTIONS FOR SPRINKLER - (OVERHEAD) IRRIGATION

Observe the requirements in the System Requirements section above. **Do not** apply when wind speed favors drift beyond the area intended for treatment. Apply SPECTRO only through systems containing anti-siphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to insure simultaneous shut-off.

Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. Application of more than recommended quantities of irrigation water per acre may result in decreased product performance.

Do not apply when wind speed favors drift. When system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained in a center pivot system, block the nozzle set nearest the well pivot injection unit to prevent spray being applied to this area. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control may result. Allow sufficient time for pesticides to be flushed through all lines and all nozzles before turning off irrigation water.

SPECTRO may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided. Check local restrictions and requirements regarding sprinkler irrigation applications, as they may vary from state to state. Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water. Prepare a suspension of SPECTRO in a mix tank. Fill the tank with 1/2 to 3/4 of the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of SPECTRO and then the remaining volume of water. Set sprinkler system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of SPECTRO into the irrigation water line so as to deliver the desired rate per acre. The suspension of SPECTRO should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

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LIMITED WARRANTY AND DISCLAIMER

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CLEARY CHEMICAL and seller offer this product and the buyer and user accept it subject to the foregoing conditions of sale and warranty which may be varied only by agreement in writing signed by a duly authorized representative of CLEARY CHEMICAL CORPORATION.

Net Weight: 5 pounds (2.27 kg)

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